

09525105.031400

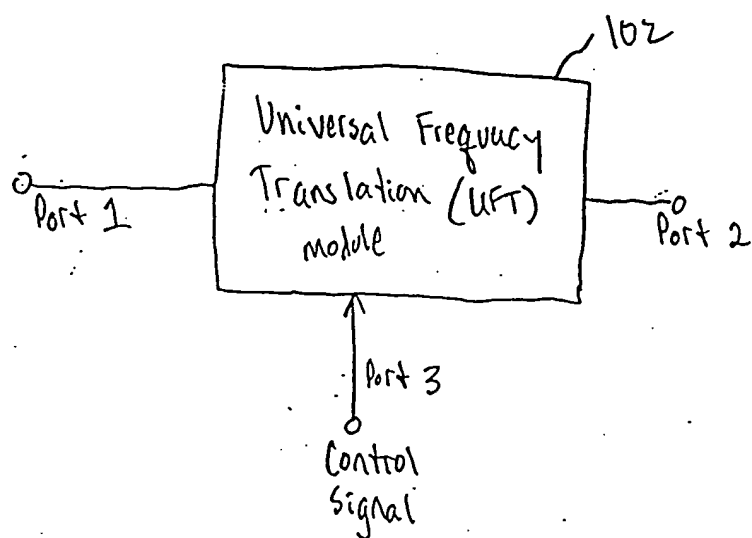


FIG. 1A



FIG. 1B

09525185-094400

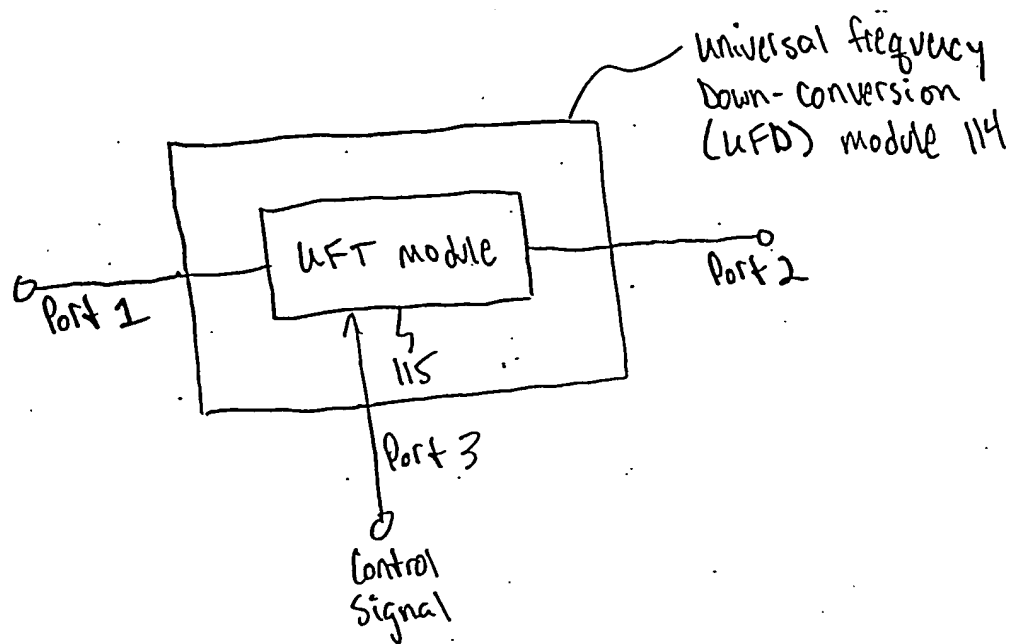


FIG. 1C

034400 034400 034400

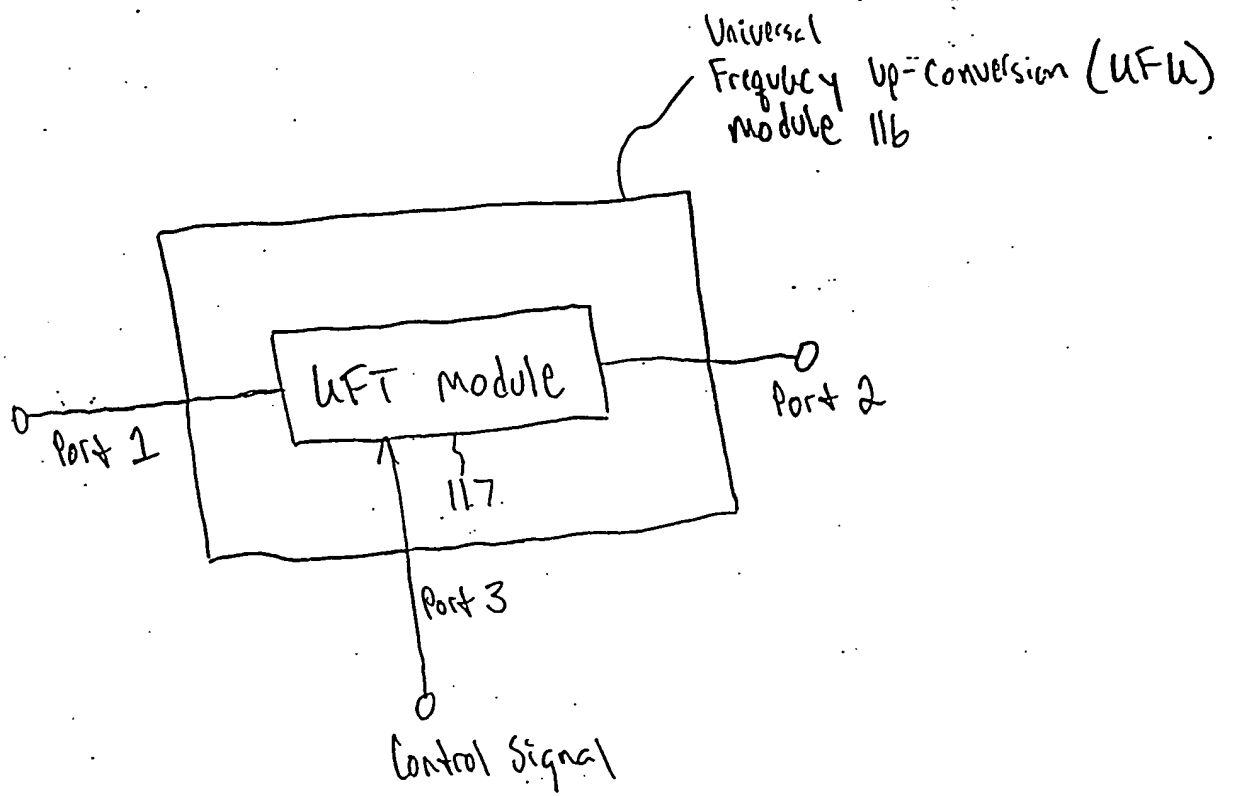


FIG. 1D

09525105 031400

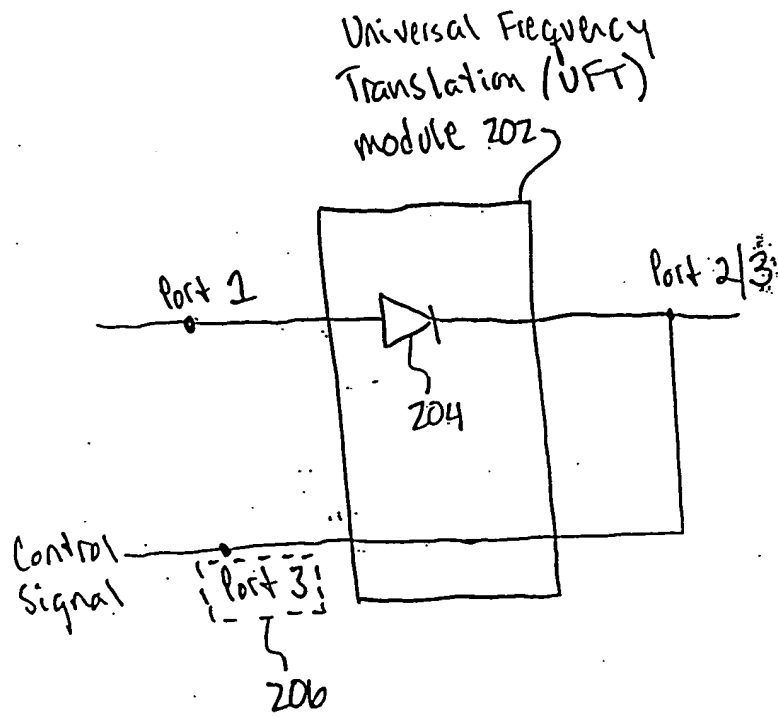


FIG. 2A

Universal Frequency
Up-conversion (UFU) module 300

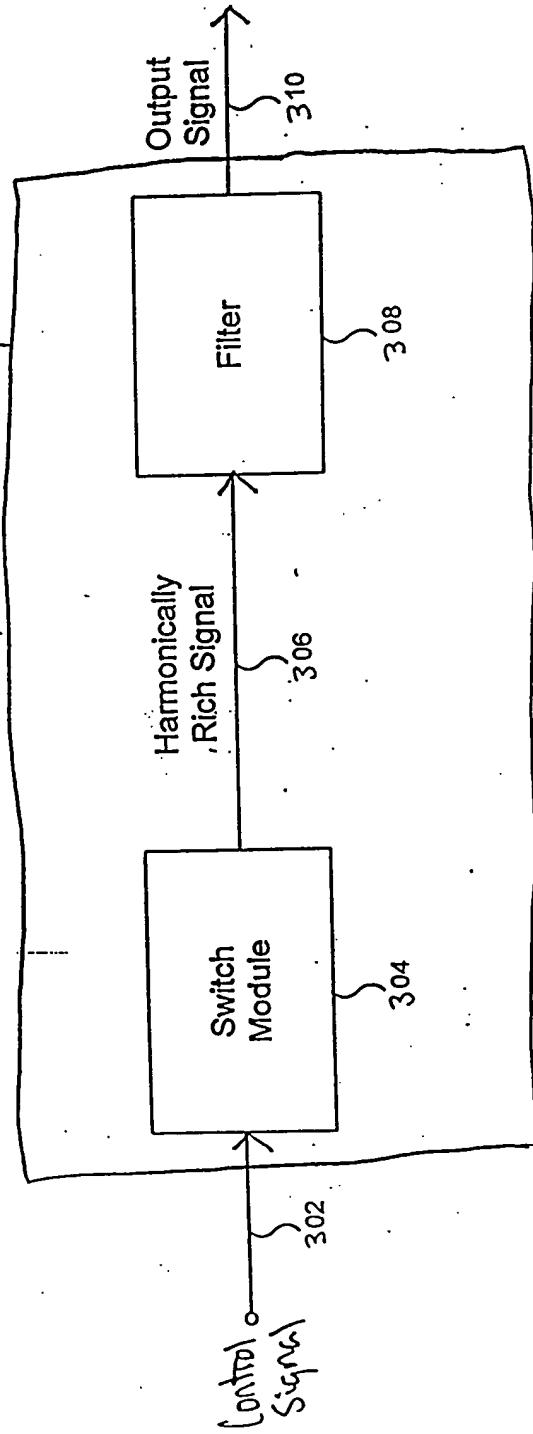


FIG. 3

3

DATE: 03/05/2000

Universal Frequency
Up-conversion (UFC) module 401

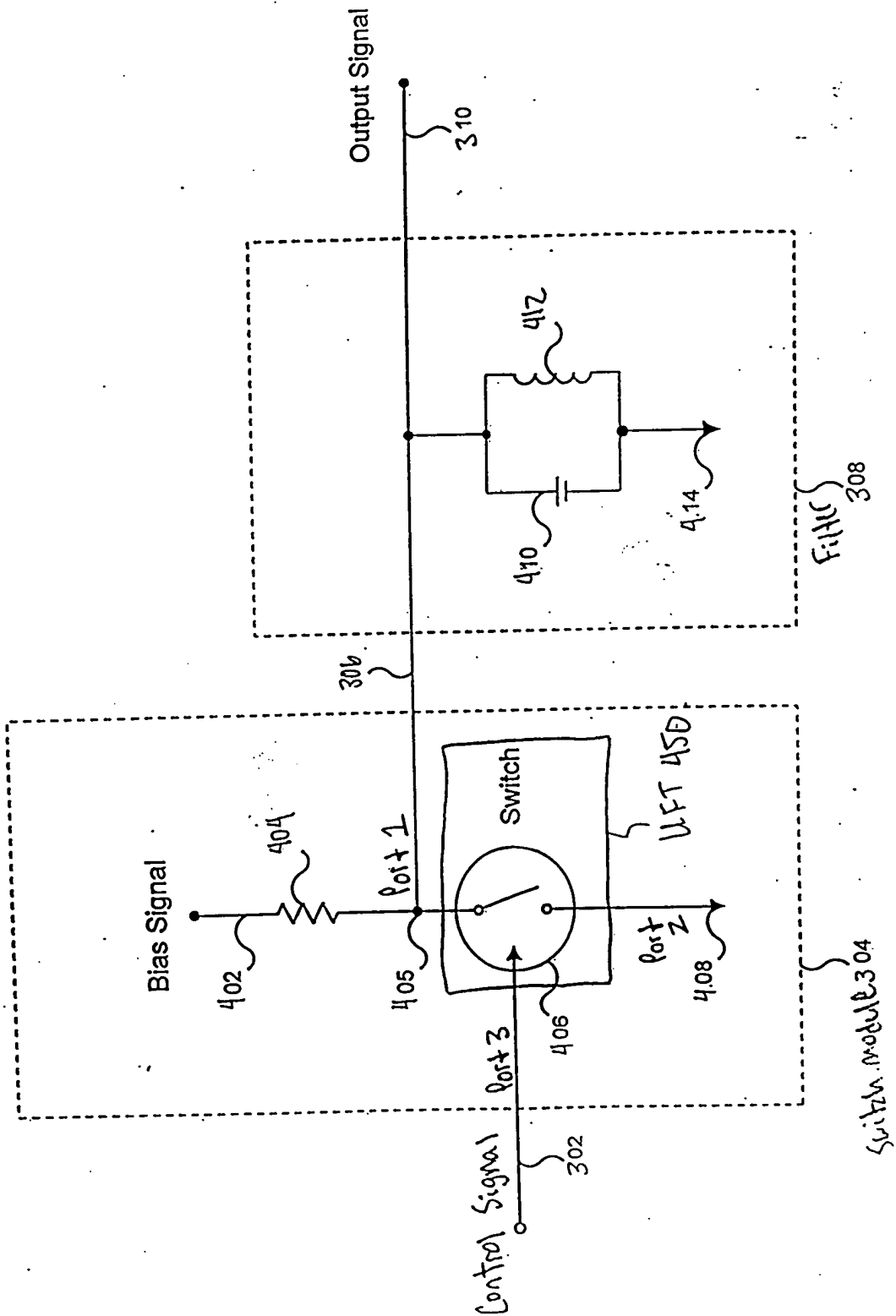


FIG. 4

3

DATE 907550

Universal Frequency
up-conversion
(UFU) module 590

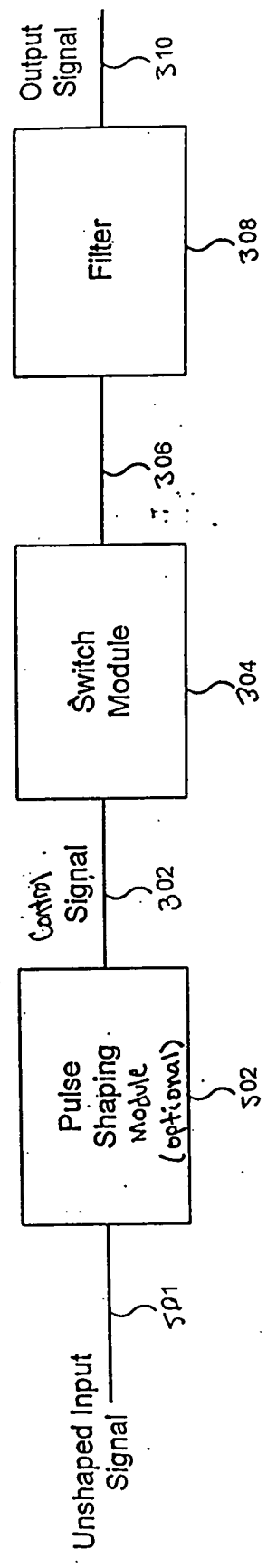


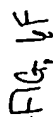
FIG. 5

54



Fig. 16

HARMONICS OF
SIGNAL \sin
(SHOWN SEPARATELY)



HARMONICS OF SIGNAL UZ (SHOWING SEPARATELY)

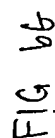
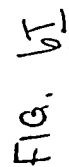


FIG. 6 (cont)

Fig 9



612C
610C

FIG. 6 (cont)

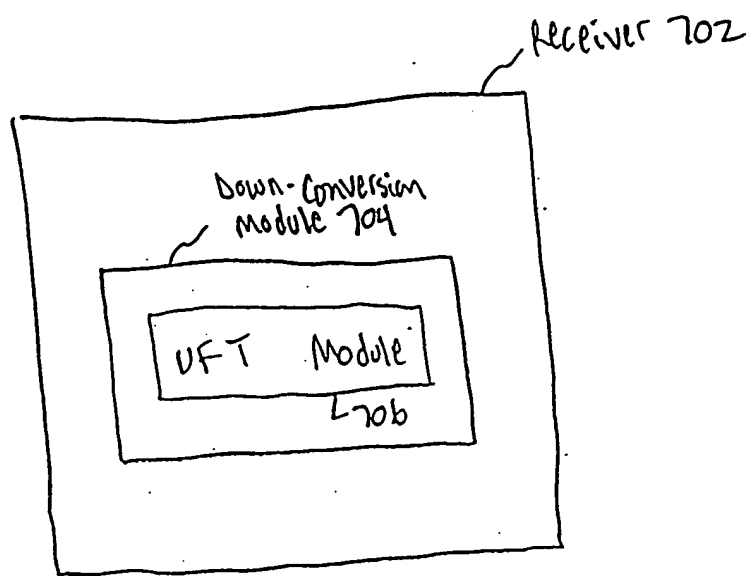


FIG. 7

09525303-034400

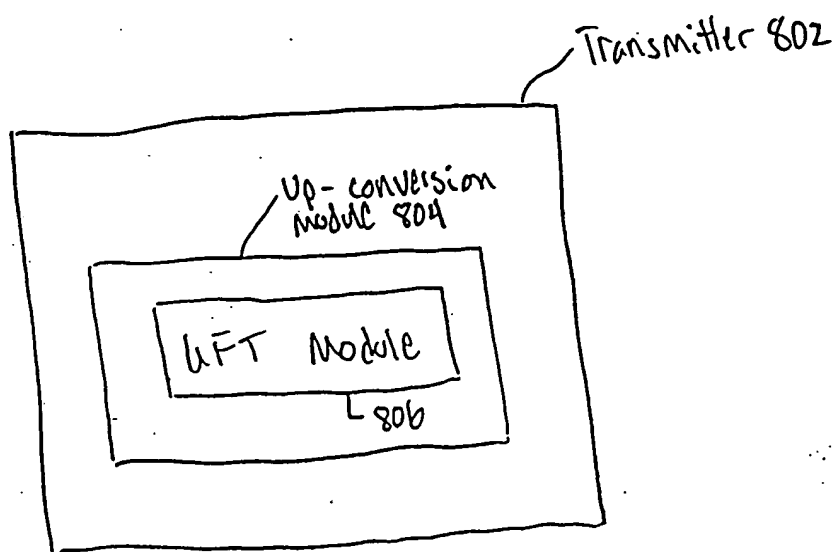


FIG. 8

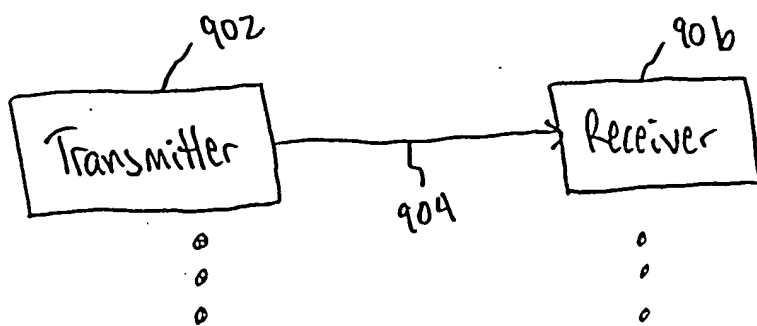


FIG. 9

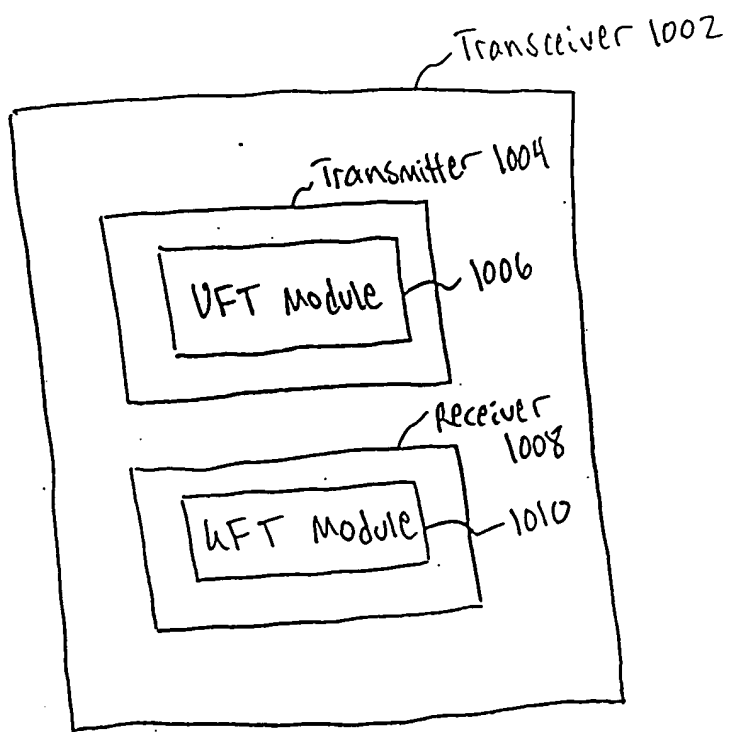


FIG. 10

09525195.034420

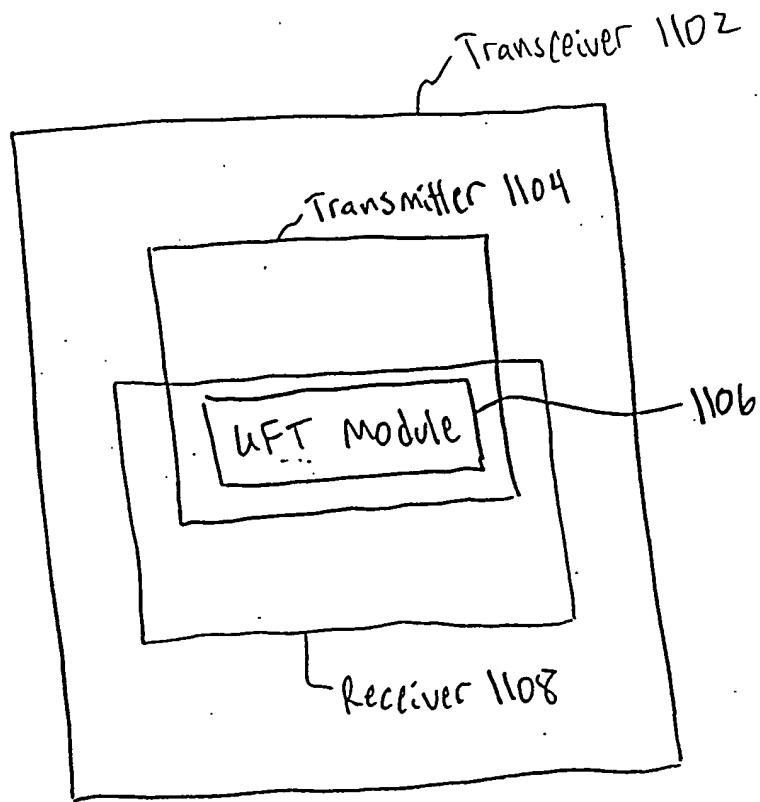
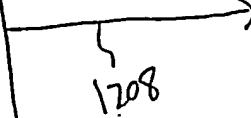
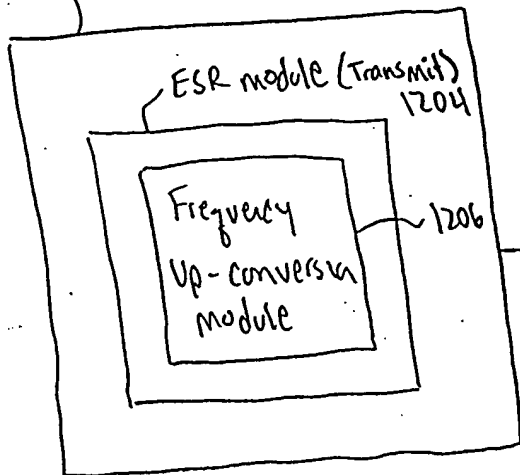


FIG. 11

Transmitter 1202



Receiver 1210

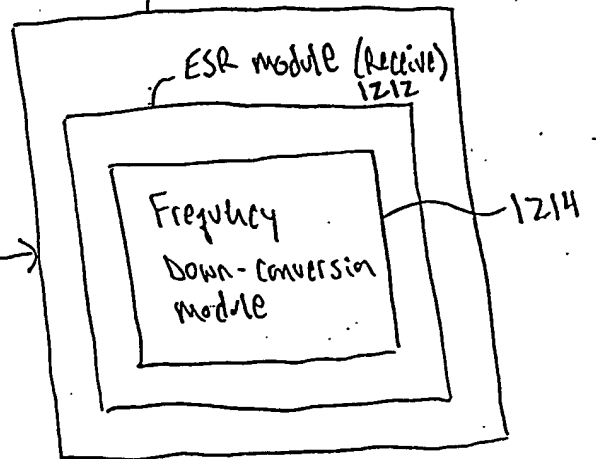


FIG. 12

Unified Down-converting
and Filtering (UDF) module 1302

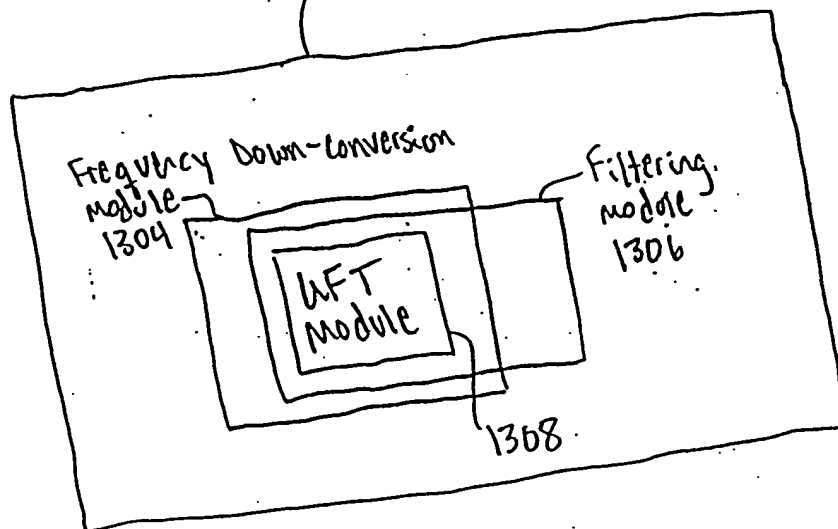


FIG. 13

09525165-034400

Unified Down-convolving
and Filtering
(UDF) module

Unified Down-Converting and Filtering (UDF) module

1404

FIG. 14

[illegible]



FIG. 15A

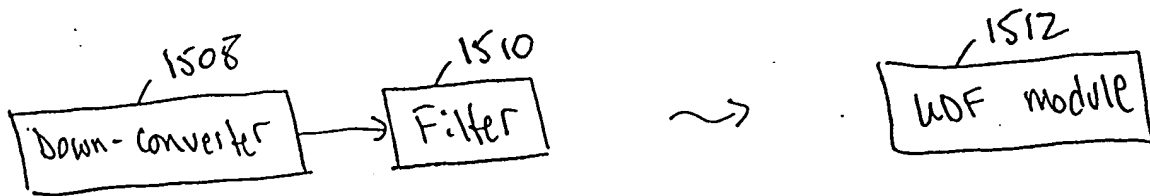


FIG. 15B

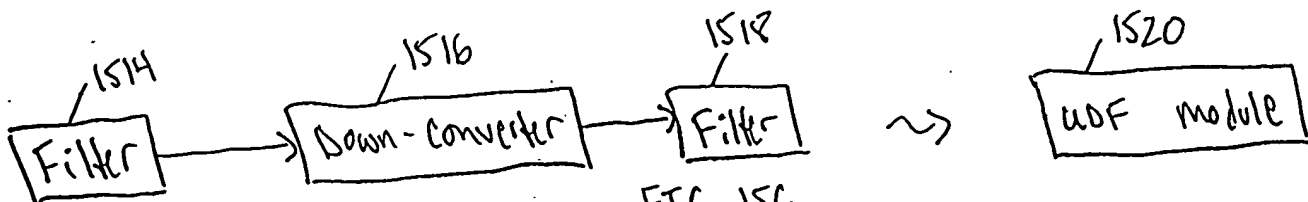


FIG. 15C



FIG. 15D

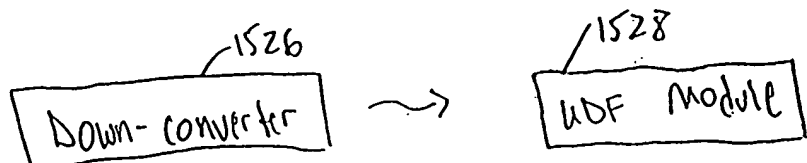


FIG. 15E

2025 RELEASE UNDER E.O. 14176

1530
Amplifier



1532
WDF Module

FIG. 15F

00526185 034400

1. What is the purpose of the study?
 2. What are the research questions or hypotheses?
 3. What is the study design?
 4. What is the sample size and how was it selected?
 5. What are the variables being measured?
 6. What are the results of the study?
 7. What are the conclusions and implications of the study?
 8. What are the limitations of the study?
 9. What are the strengths of the study?
 10. What are the future research directions?



9809-02.vsd/13

1802

Time Node	t-1 (rising edge of ϕ_1)	t-1 (rising edge of ϕ_2)	t (rising edge of ϕ_1)	t (rising edge of ϕ_2)	t+1 (rising edge of ϕ_1)
1902	VI_{t-1} 1804	VI_{t-1} 1808	VI_t 1816	VI_t 1826	VI_{t+1} 1838
1904	—	VI_{t-1} 1810	VI_{t-1} 1818	VI_t 1828	VI_t 1840
1906	VO_{t-1} 1806	VO_{t-1} 1812	VO_t 1820	VO_t 1830	VO_{t+1} 1842
1908	—	VO_{t-1} 1814	VO_{t-1} 1822	VO_t 1832	VO_t 1844
1910	— 1807	—	VO_{t-1} 1824	VO_{t-1} 1834	VO_t 1846
1912	—	— 1815	—	VO_{t-1} 1836	VO_{t-1} 1848
1918	—	—	—	—	VI_t 1850 0.1 * VO_t 0.8 * VO_{t-1}

FIG. 18

VOF module 1922
(band pass)

Output 1922

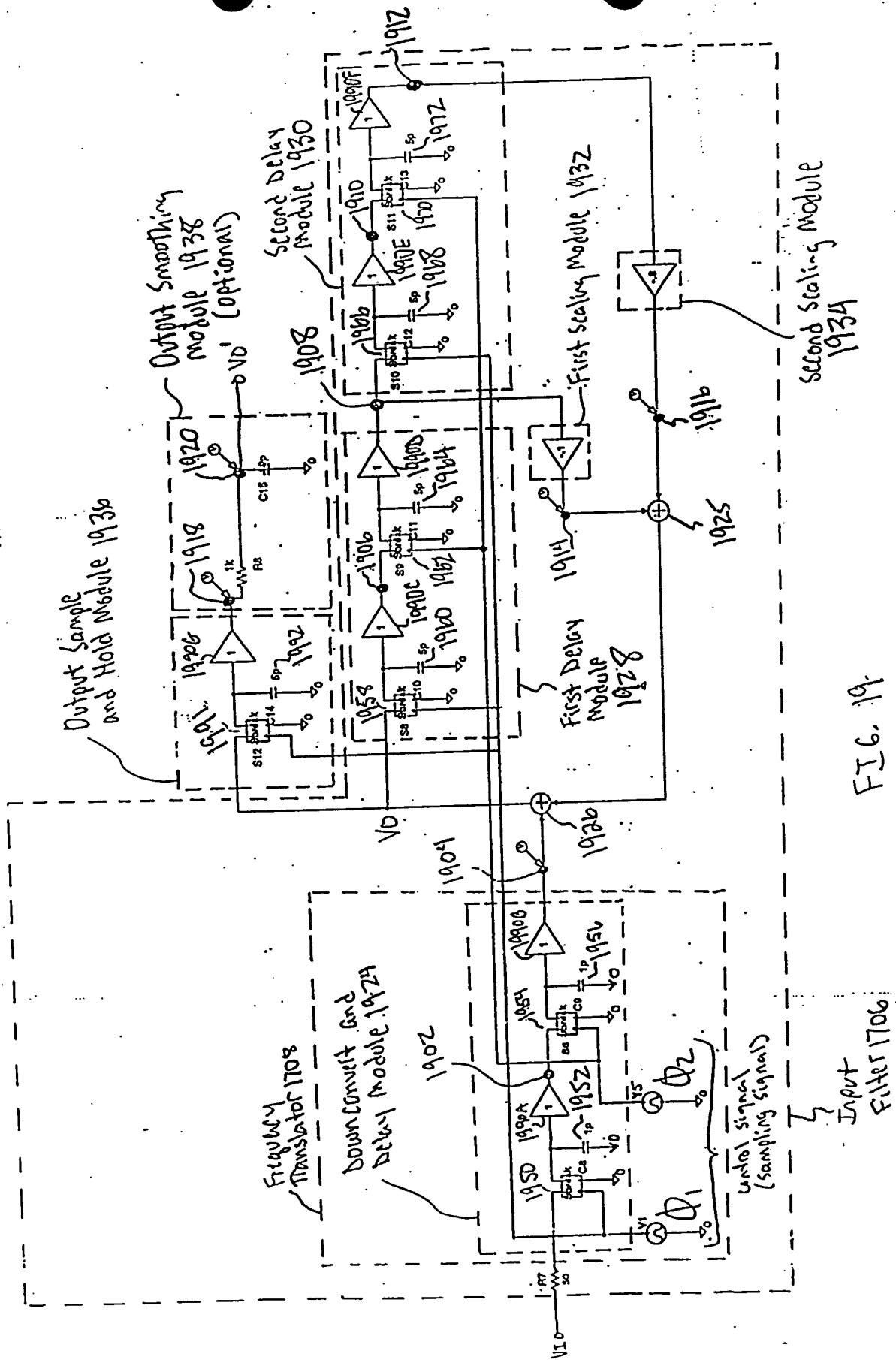


FIG. 19

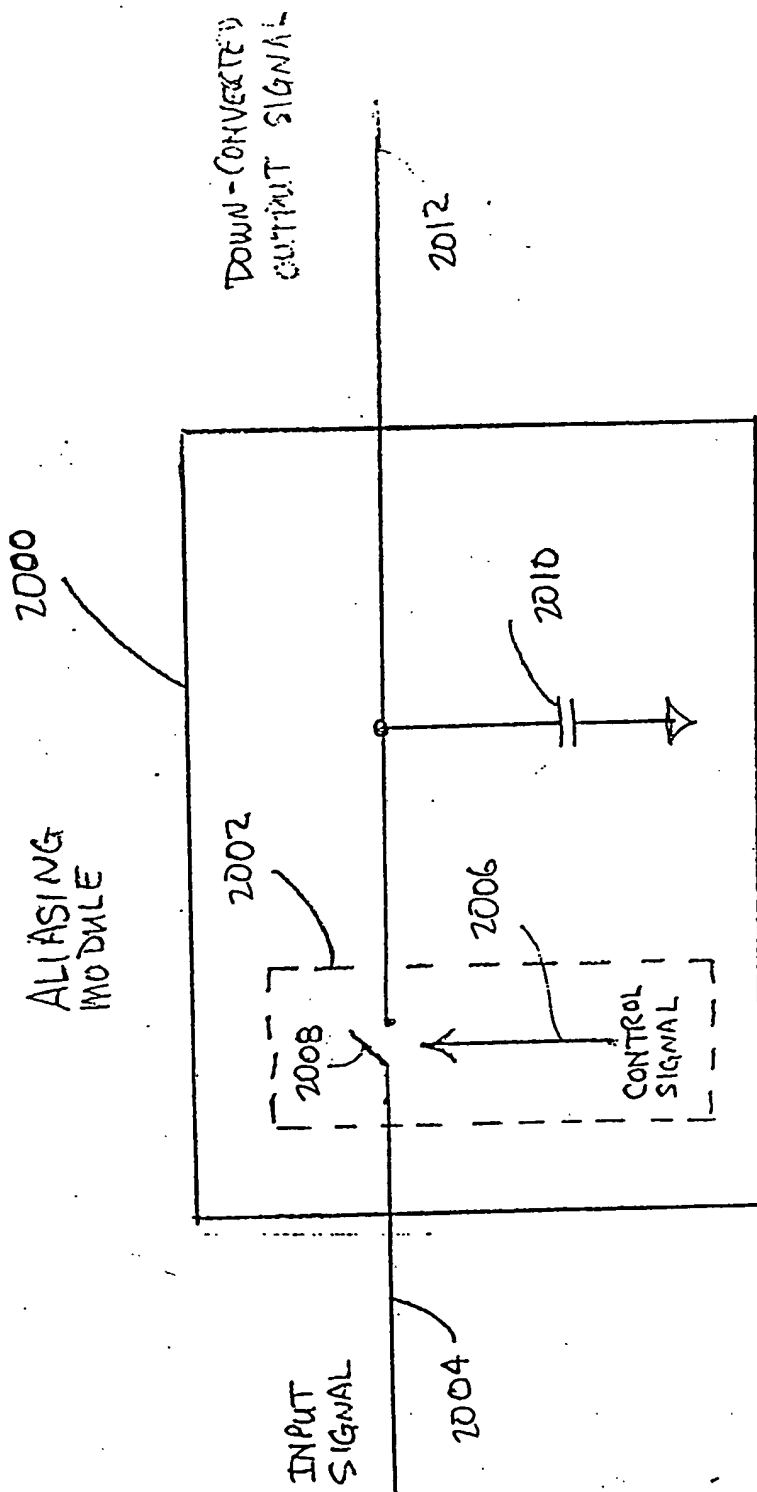


FIG. 20A

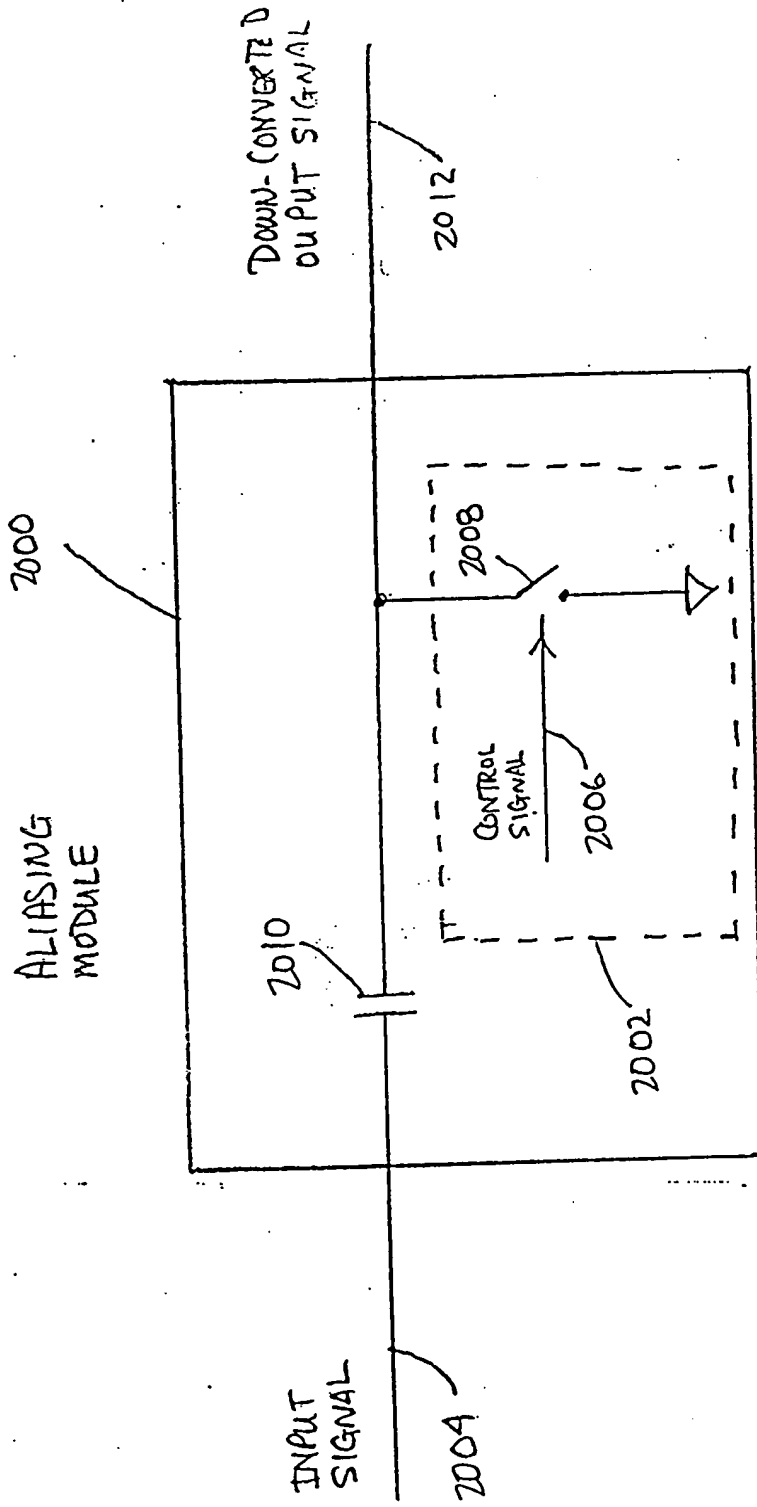


FIG. 20A-1

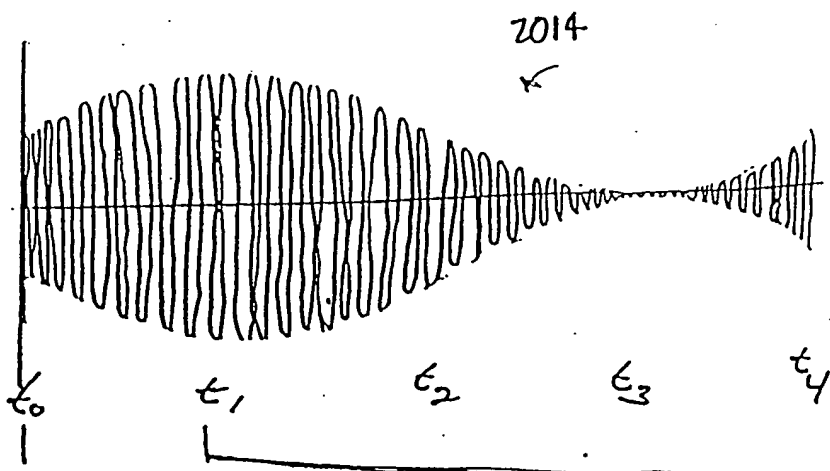


FIG. 20B

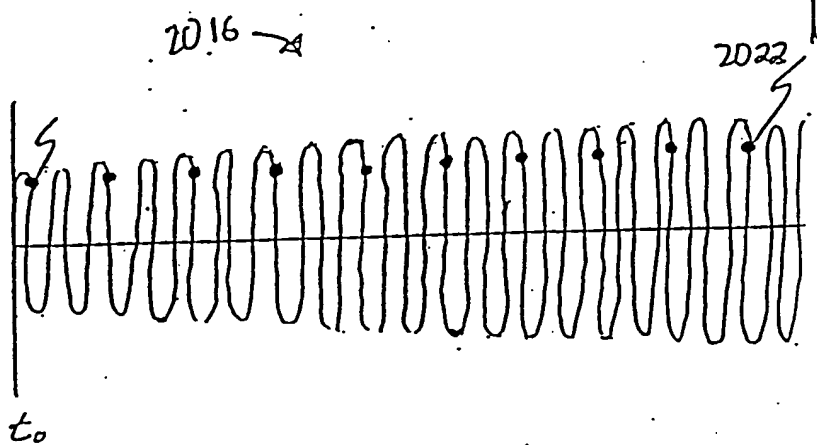


FIG. 20C

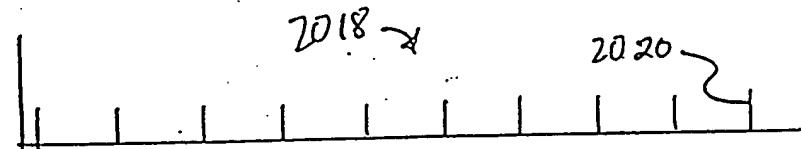


FIG. 20D

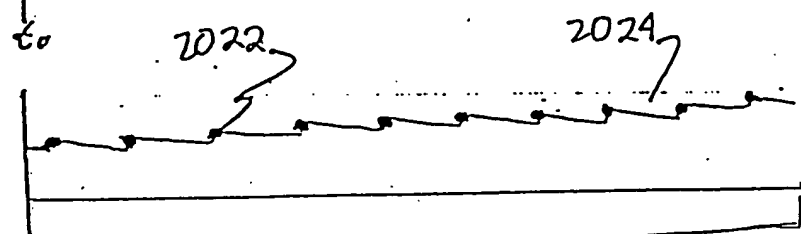


FIG. 20E

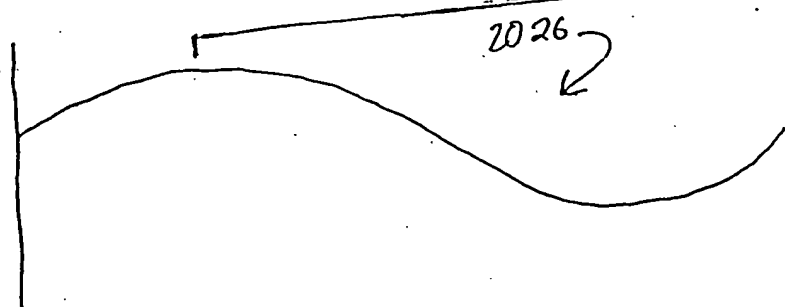


FIG. 20F

00525185.034100

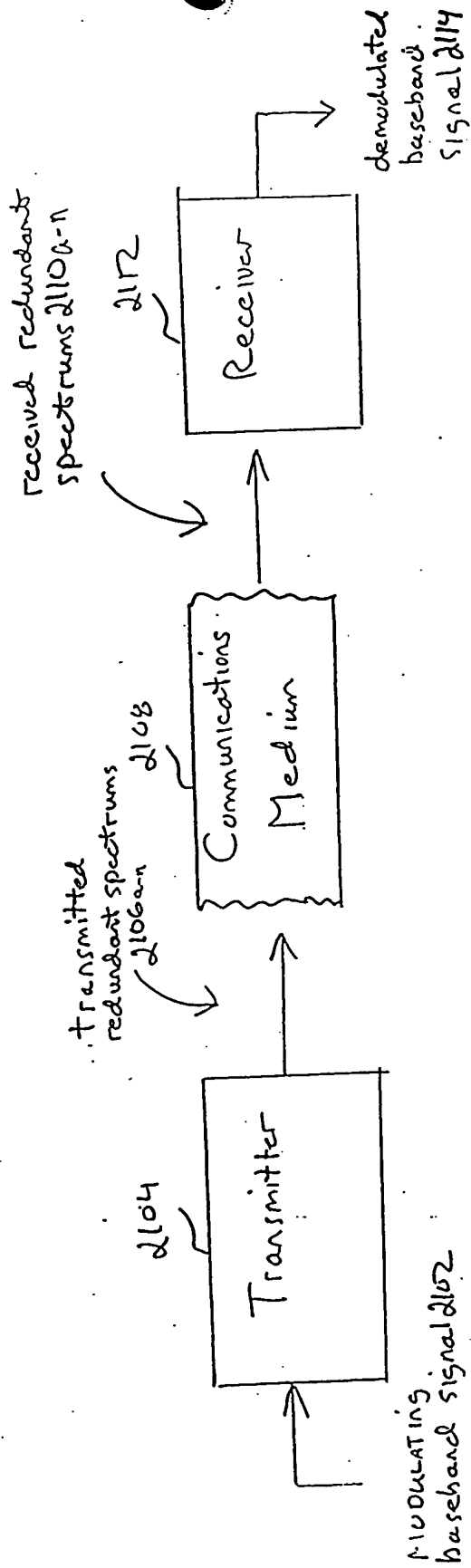
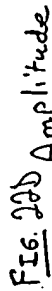
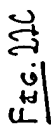
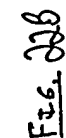
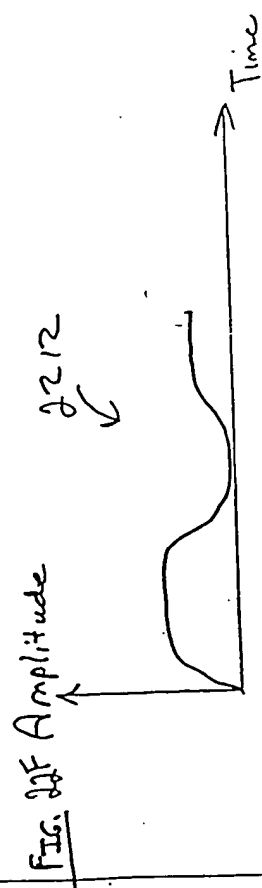
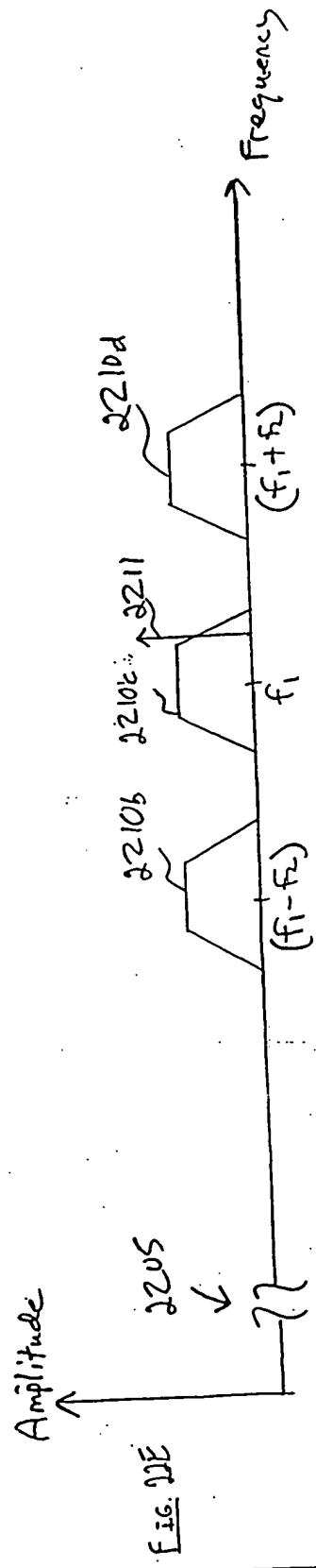


Fig. 21





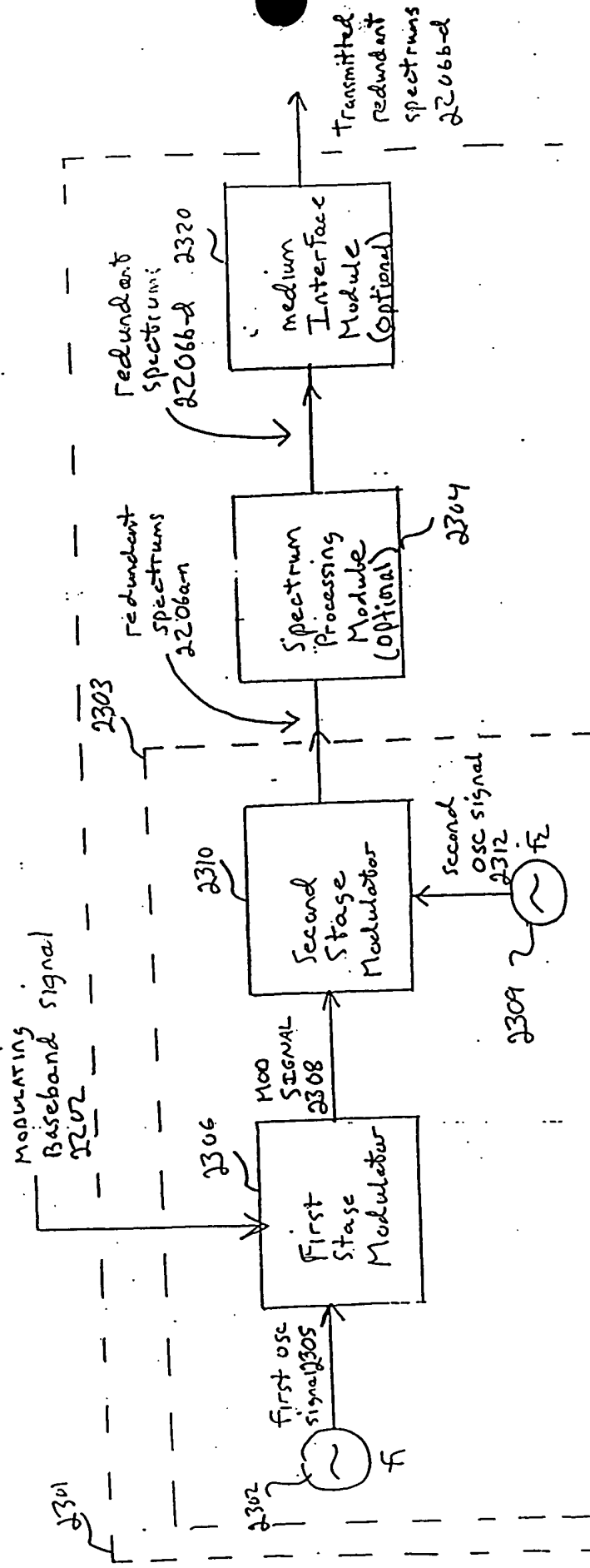
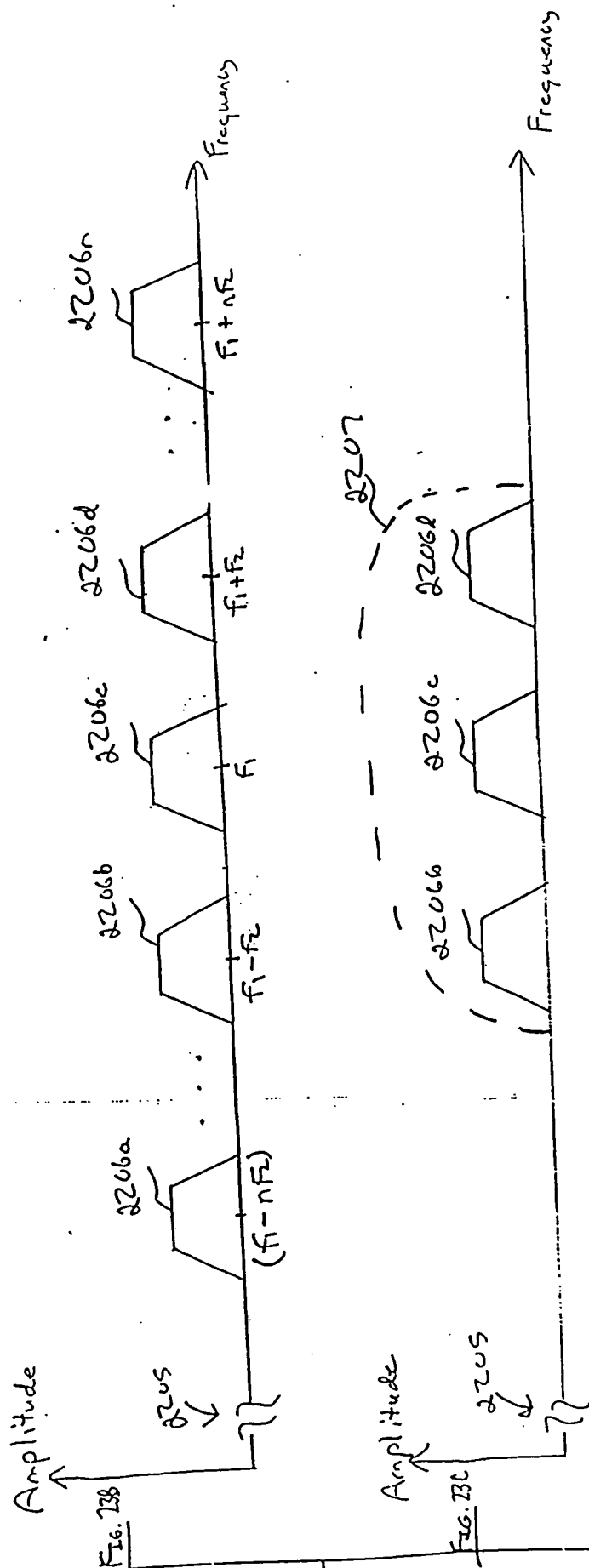


FIG. 23A

11100	11101	11102	11103	11104	11105	11106	11107	11108	11109	11110	11111	11112	11113	11114	11115	11116	11117	11118	11119	11120	11121	11122	11123	11124	11125	11126	11127	11128	11129	11130	11131	11132	11133	11134	11135	11136	11137	11138	11139	11140	11141	11142	11143	11144	11145	11146	11147	11148	11149	11150	11151	11152	11153	11154	11155	11156	11157	11158	11159	11160	11161	11162	11163	11164	11165	11166	11167	11168	11169	11170	11171	11172	11173	11174	11175	11176	11177	11178	11179	11180	11181	11182	11183	11184	11185	11186	11187	11188	11189	11190	11191	11192	11193	11194	11195	11196	11197	11198	11199	11200	11201	11202	11203	11204	11205	11206	11207	11208	11209	11210	11211	11212	11213	11214	11215	11216	11217	11218	11219	11220	11221	11222	11223	11224	11225	11226	11227	11228	11229	11230	11231	11232	11233	11234	11235	11236	11237	11238	11239	11240	11241	11242	11243	11244	11245	11246	11247	11248	11249	11250	11251	11252	11253	11254	11255	11256	11257	11258	11259	11260	11261	11262	11263	11264	11265	11266	11267	11268	11269	11270	11271	11272	11273	11274	11275	11276	11277	11278	11279	11280	11281	11282	11283	11284	11285	11286	11287	11288	11289	11290	11291	11292	11293	11294	11295	11296	11297	11298	11299	11300	11301	11302	11303	11304	11305	11306	11307	11308	11309	11310	11311	11312	11313	11314	11315	11316	11317	11318	11319	11320	11321	11322	11323	11324	11325	11326	11327	11328	11329	11330	11331	11332	11333	11334	11335	11336	11337	11338	11339	11340	11341	11342	11343	11344	11345	11346	11347	11348	11349	11350	11351	11352	11353	11354	11355	11356	11357	11358	11359	11360	11361	11362	11363	11364	11365	11366	11367	11368	11369	11370	11371	11372	11373	11374	11375	11376	11377	11378	11379	11380	11381	11382	11383	11384	11385	11386	11387	11388	11389	11390	11391	11392	11393	11394	11395	11396	11397	11398	11399	11400	11401	11402	11403	11404	11405	11406	11407	11408	11409	11410	11411	11412	11413	11414	11415	11416	11417	11418	11419	11420	11421	11422	11423	11424	11425	11426	11427	11428	11429	11430	11431	11432	11433	11434	11435	11436	11437	11438	11439	11440	11441	11442	11443	11444	11445	11446	11447	11448	11449	11450	11451	11452	11453	11454	11455	11456	11457	11458	11459	11460	11461	11462	11463	11464	11465	11466	11467	11468	11469	11470	1147
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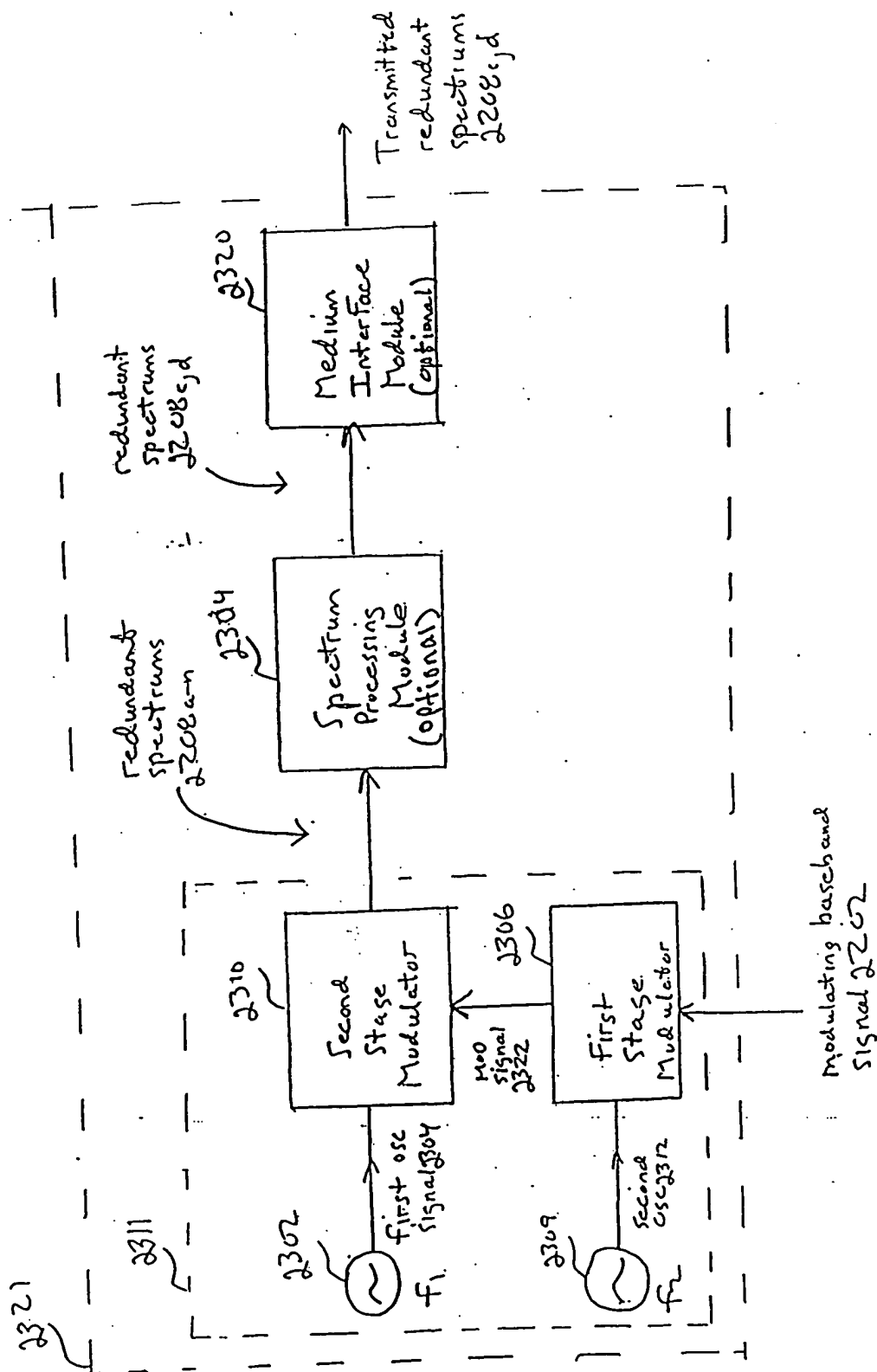


FIG. 23D

FIG. 23E

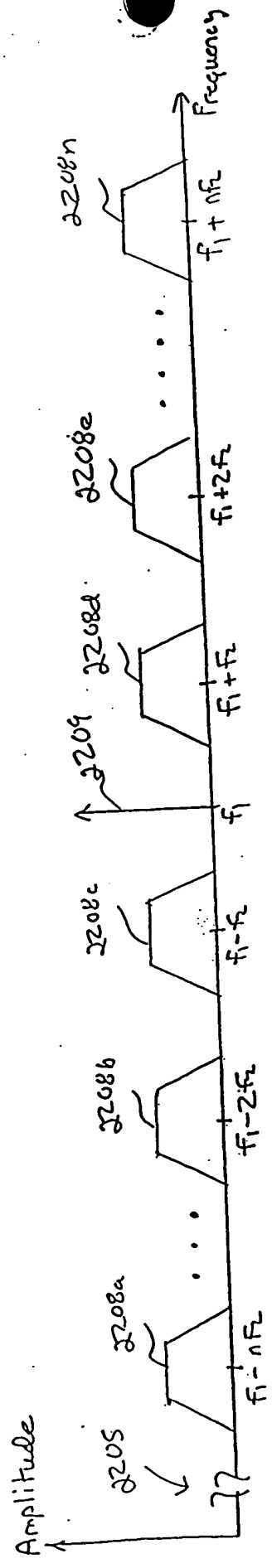
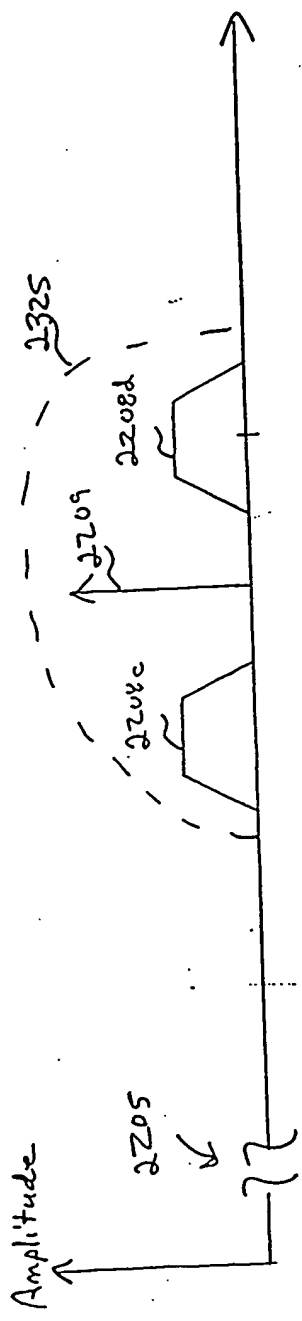


FIG. 23F



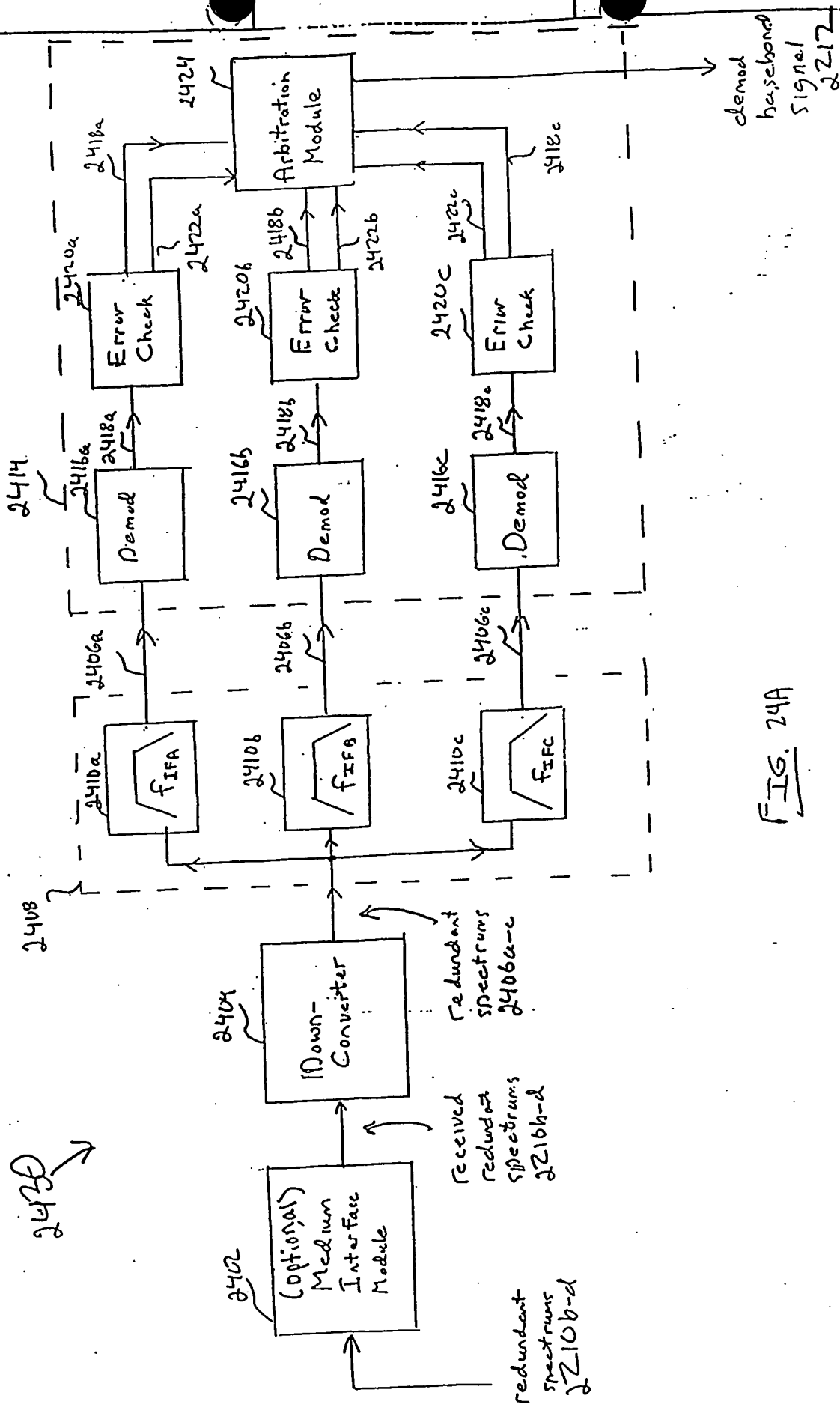
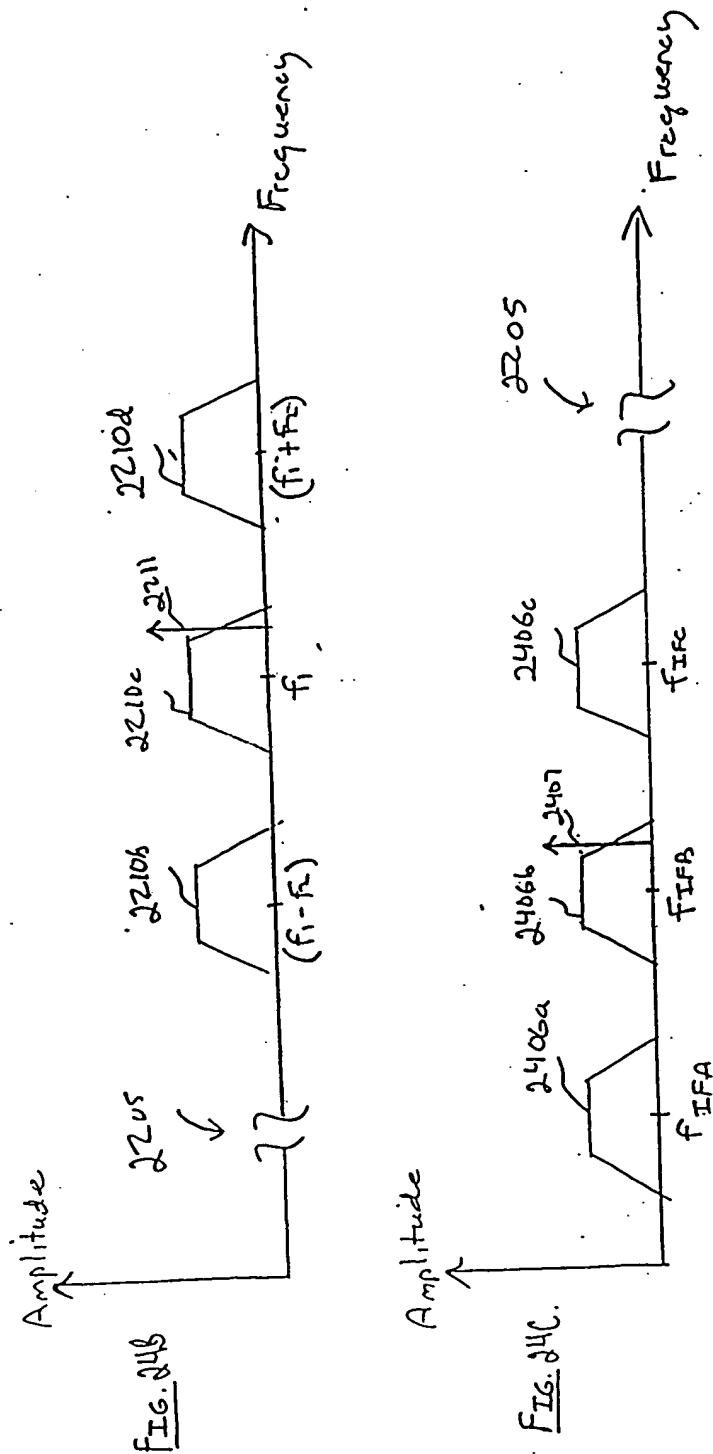
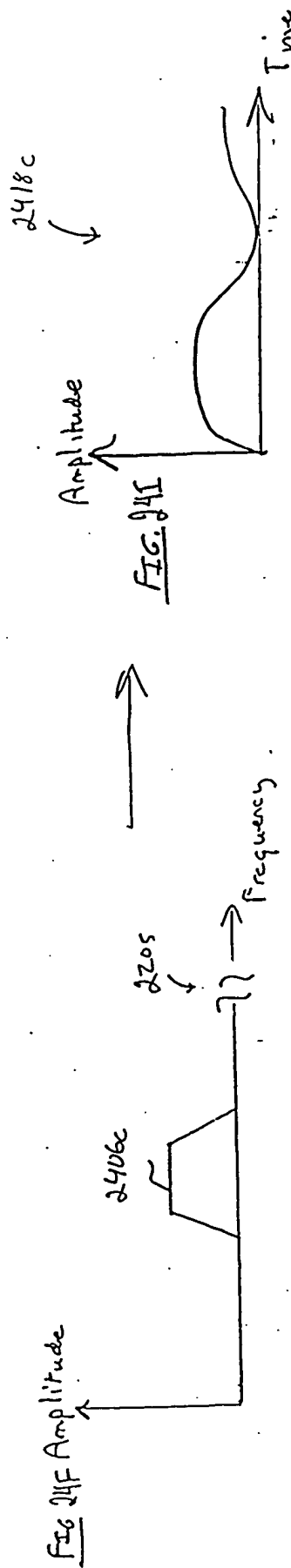
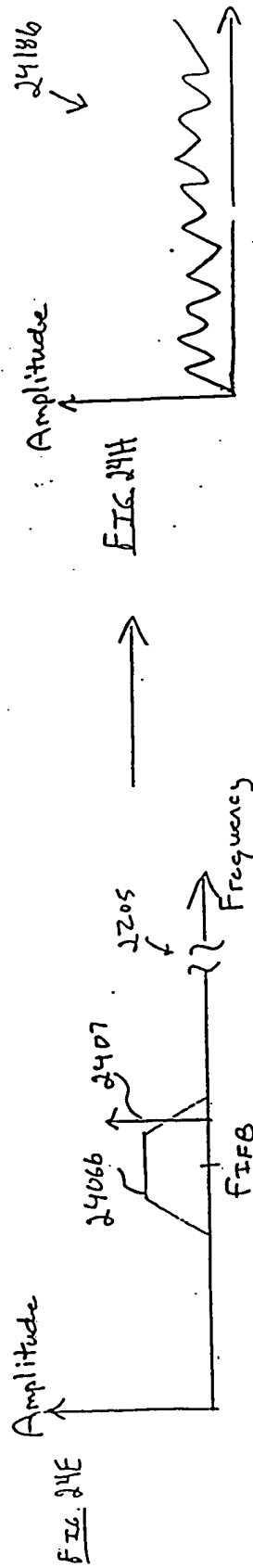
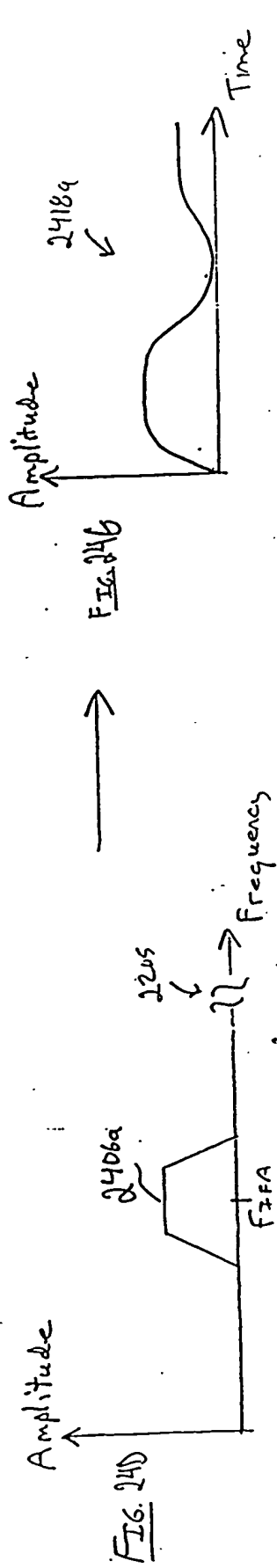
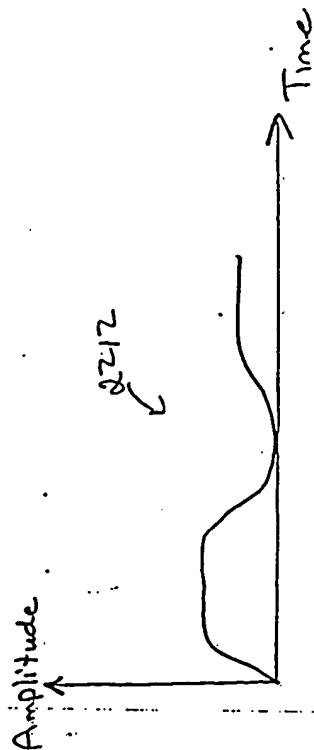


FIG. 24A





[illegible]

FC: 245

1. The first part of the paper is devoted to a review of the literature on the topic. It starts with a general overview of the field, followed by a more detailed discussion of the specific issues at hand. The second part of the paper presents the results of the study, which are then discussed in the context of the existing literature. Finally, the paper concludes with some thoughts on the implications of the findings and suggestions for future research.

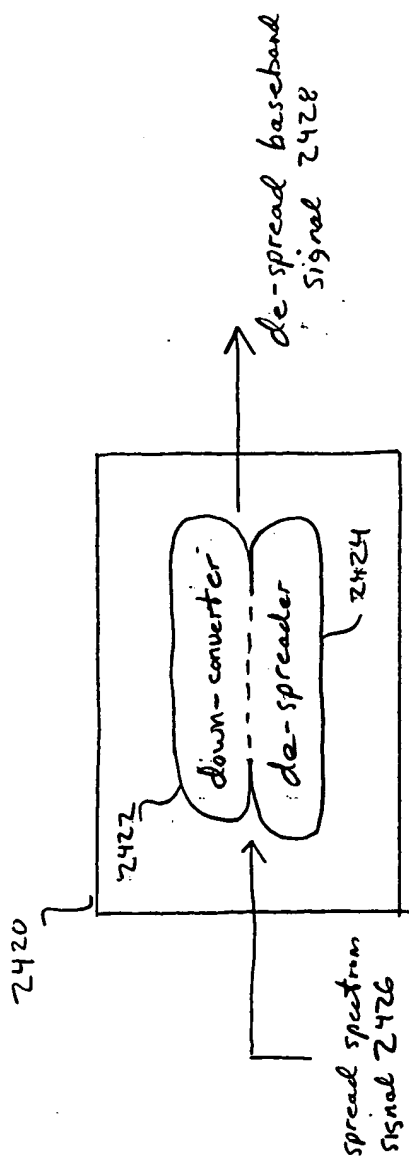


Fig. 24k

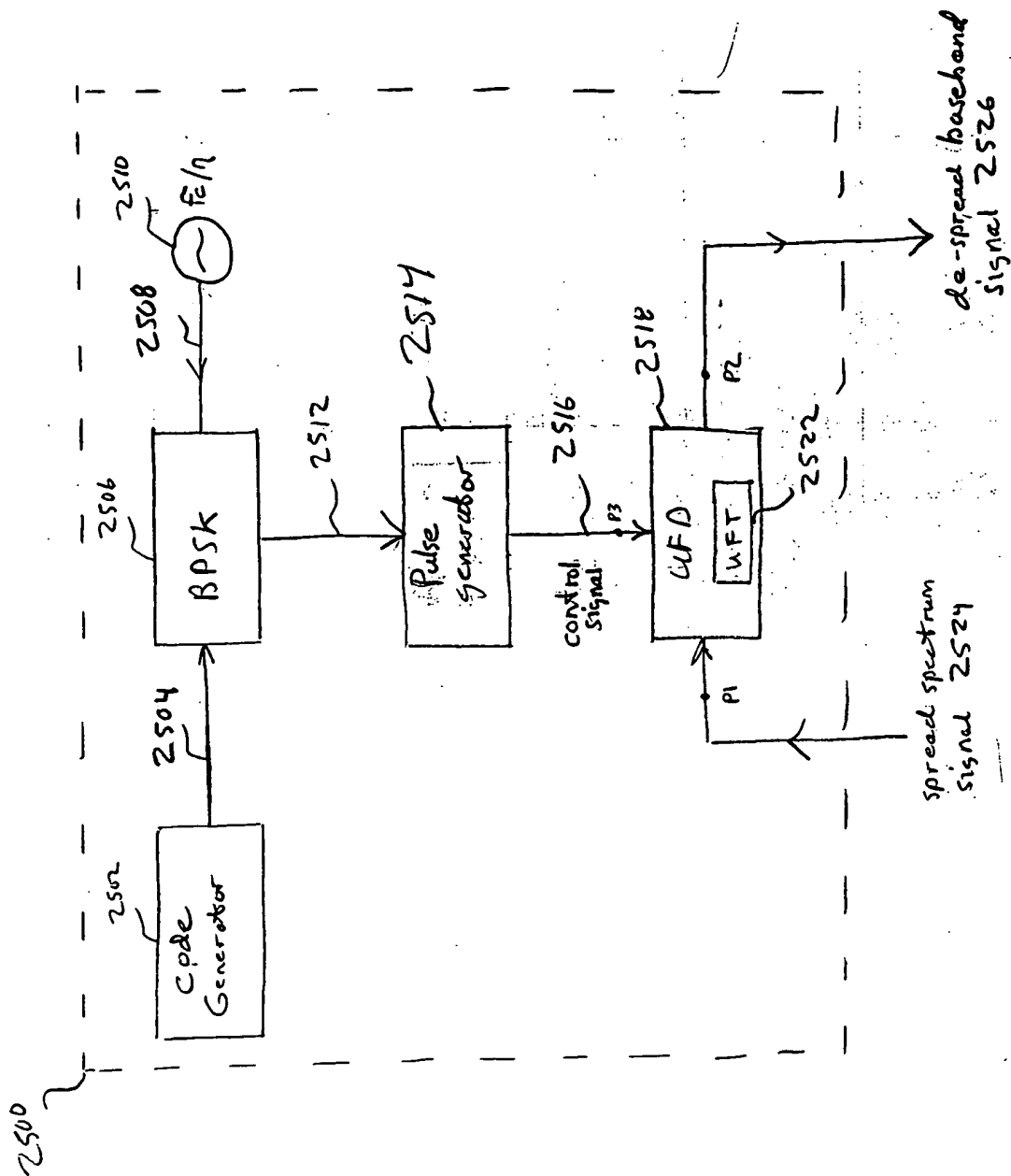
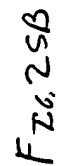


Fig. 25A



2540

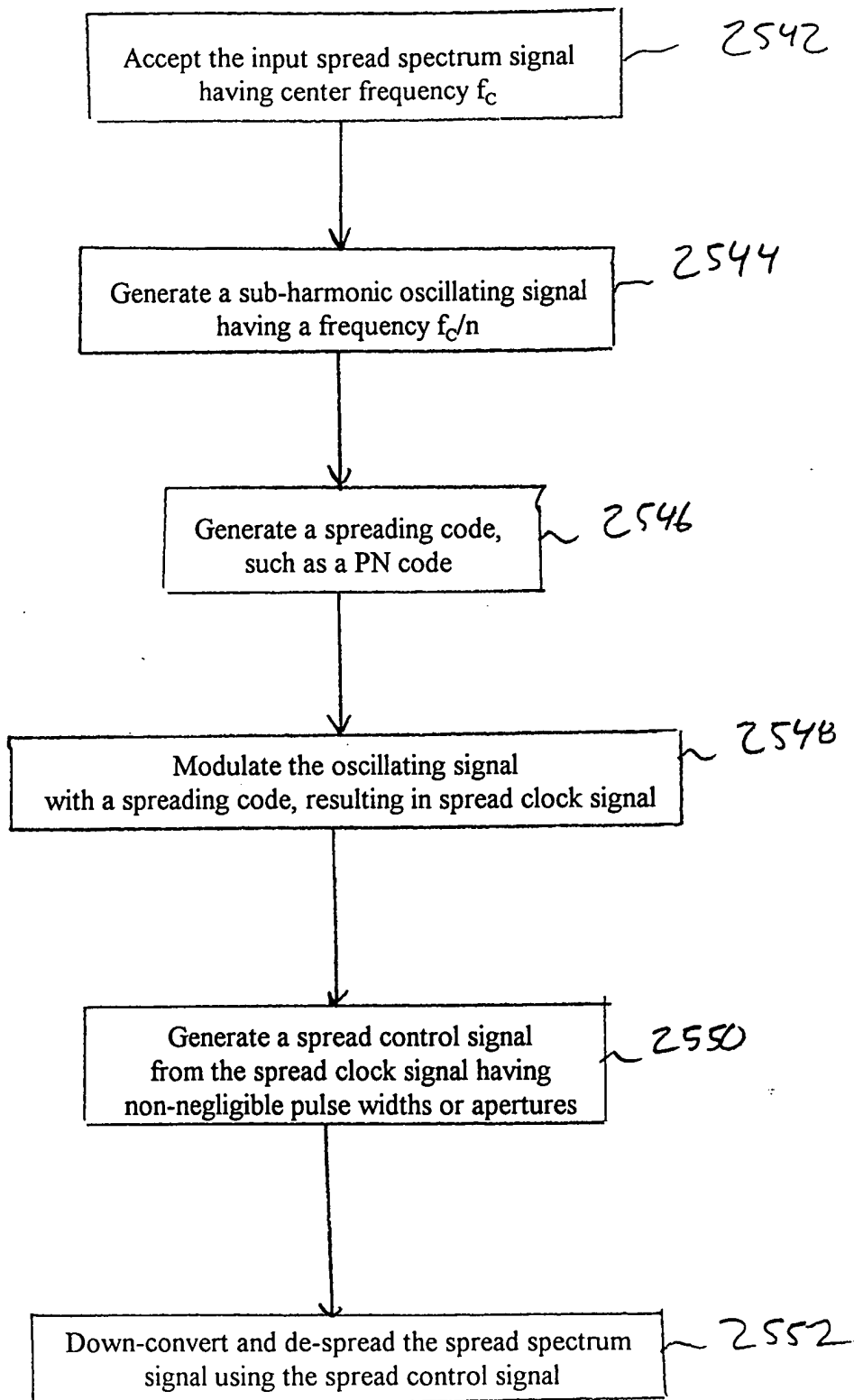


FIG. 25C

Under-sample the spread spectrum signal
according to the spread control signal

2554



Store the undersamples using a storage element

2556

2552

FIG. 250

0922405, 033400



42-381 100 SHEETS EYE EASE 5 SQUARE
 42-382 100 SHEETS EYE EASE 5 SQUARE
 42-383 100 SHEETS EYE EASE 5 SQUARE
 42-384 100 SHEETS EYE EASE 5 SQUARE
 42-385 100 SHEETS EYE EASE 5 SQUARE
 42-386 100 RECYCLED WHITE 5 SQUARE
 42-387 200 RECYCLED WHITE 5 SQUARE

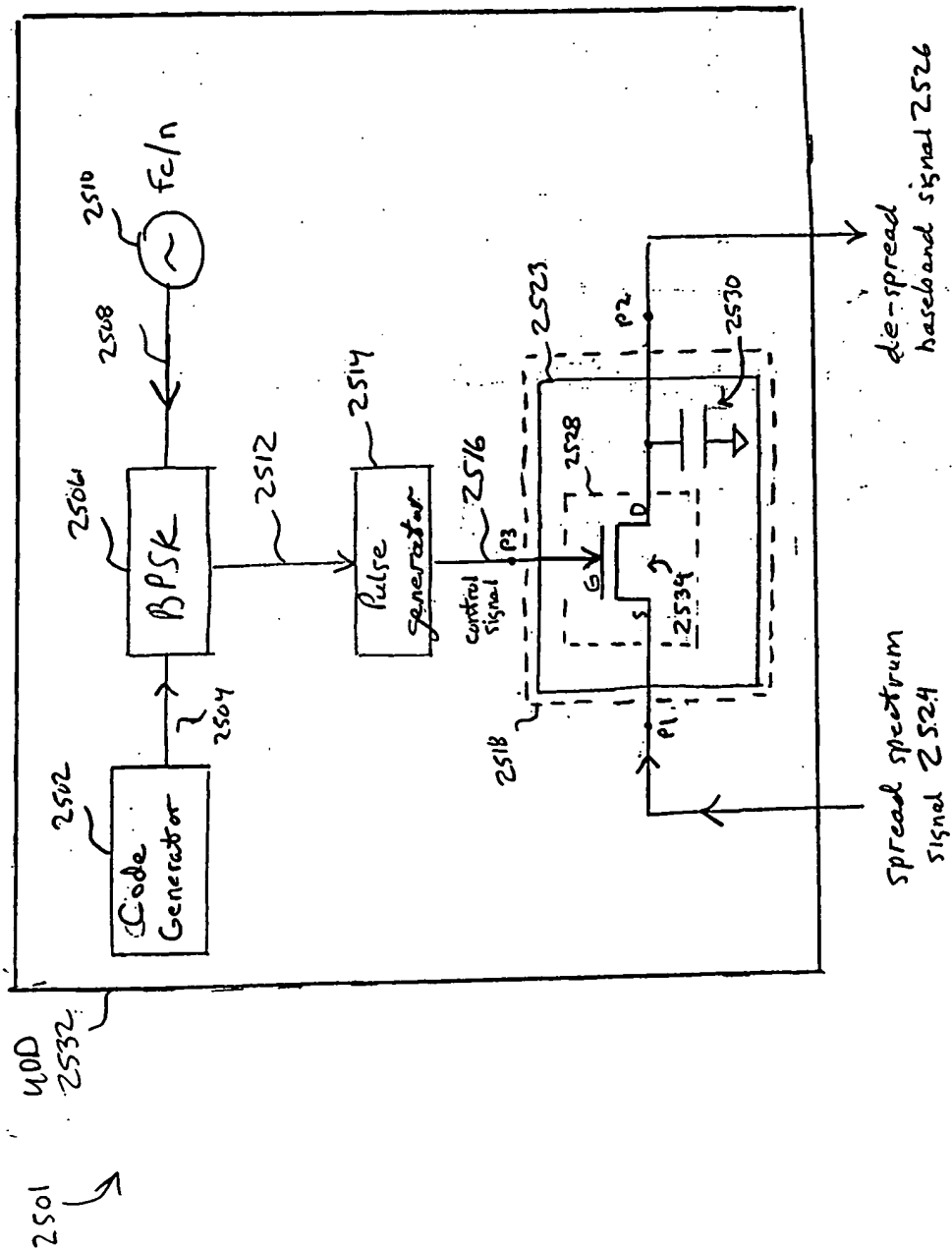
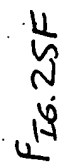


FIG. 25E



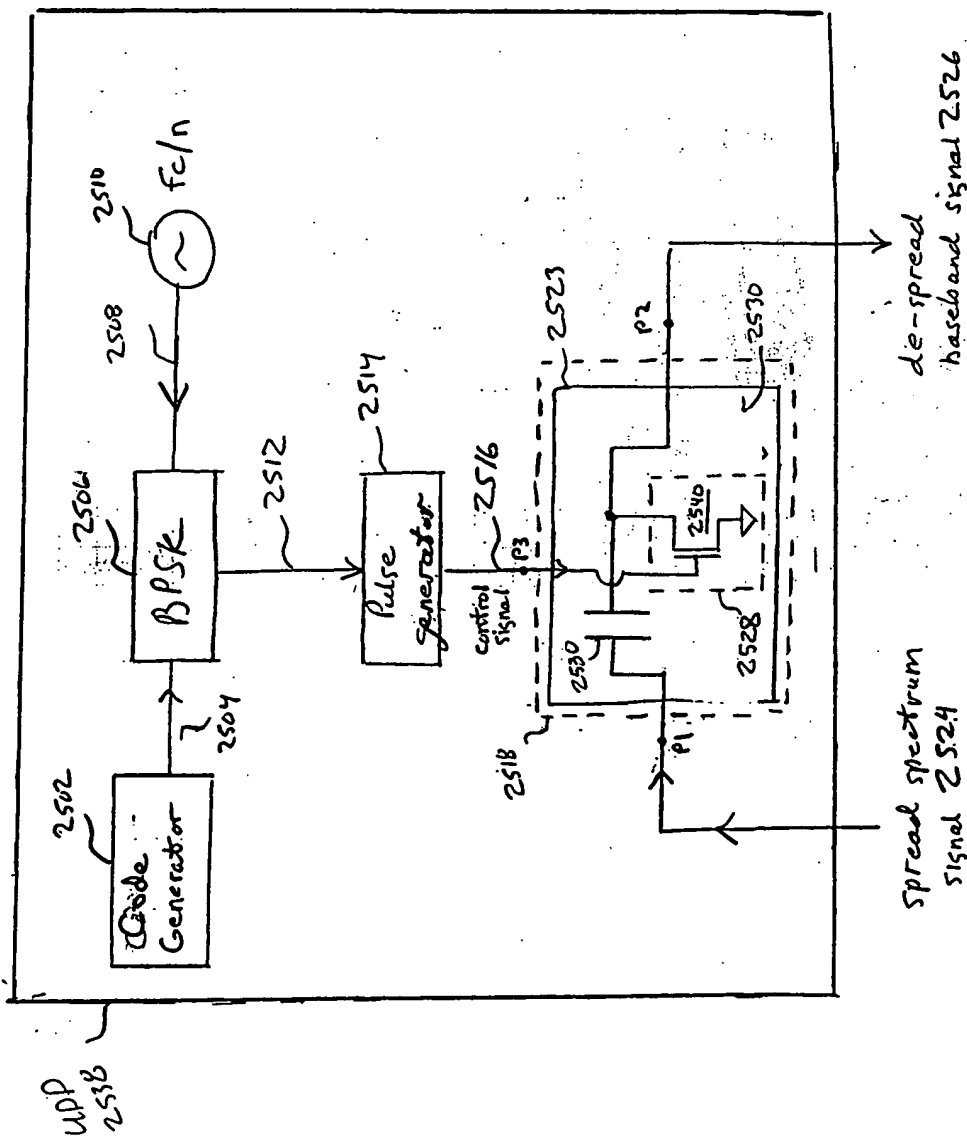


FIG. 25G.


```
graph TD; 2562[Perform matched filter/correlating operation on an approximate half-cycle of the input spread spectrum signal] --> 2564[Accumulate the result of the matched filter correlation]; 2564 --> 2566[Repeat steps 2562 and 2564 over over half cycles of the spread spectrum signal according to the spread control signal];
```

2552

2562

2564

2566

FIG. 25H

004400 03400

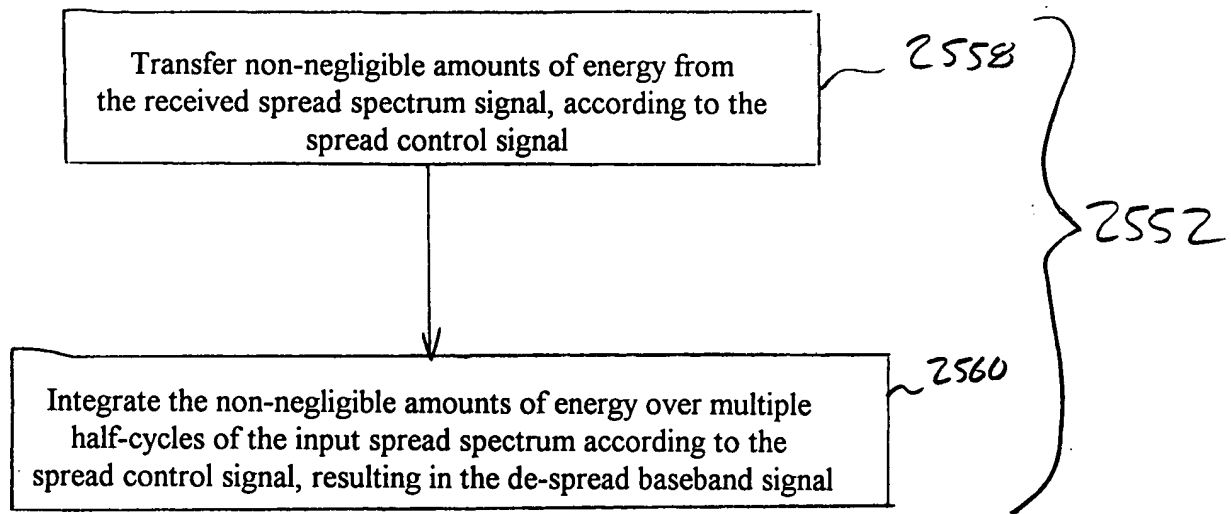


FIG. 25I

09522E.405 034400

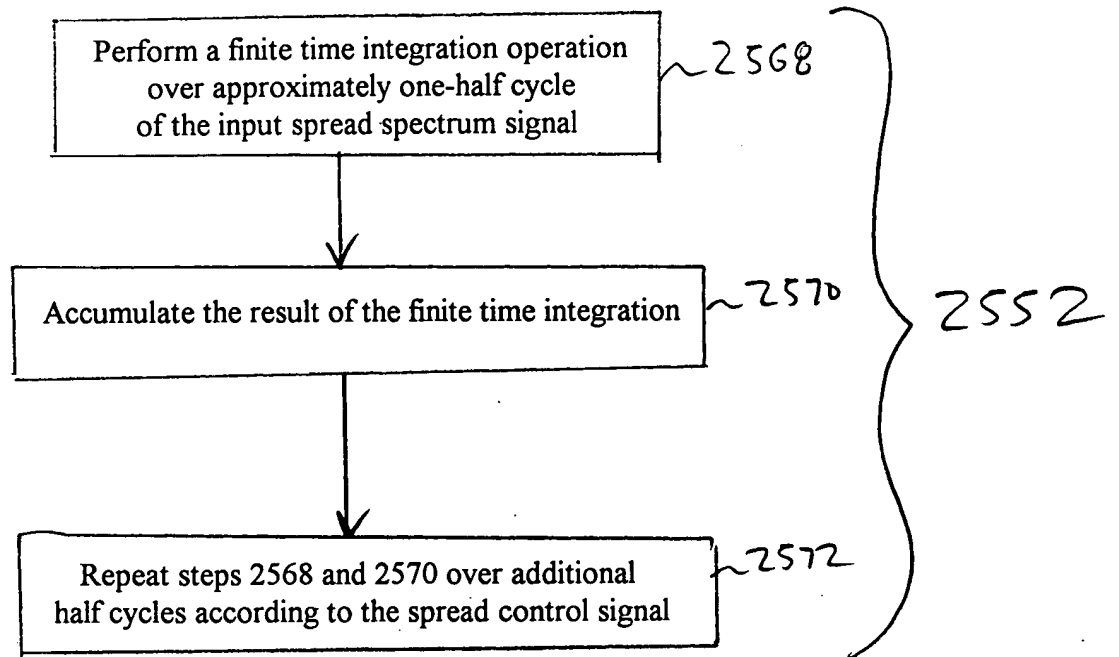
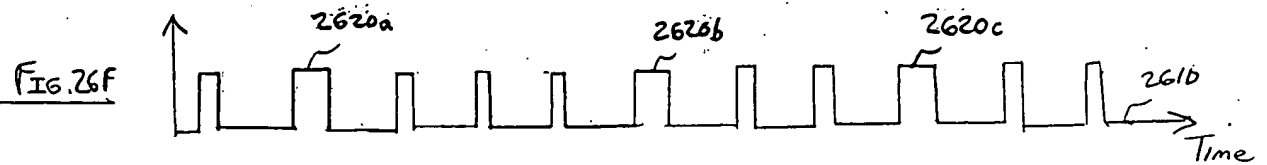
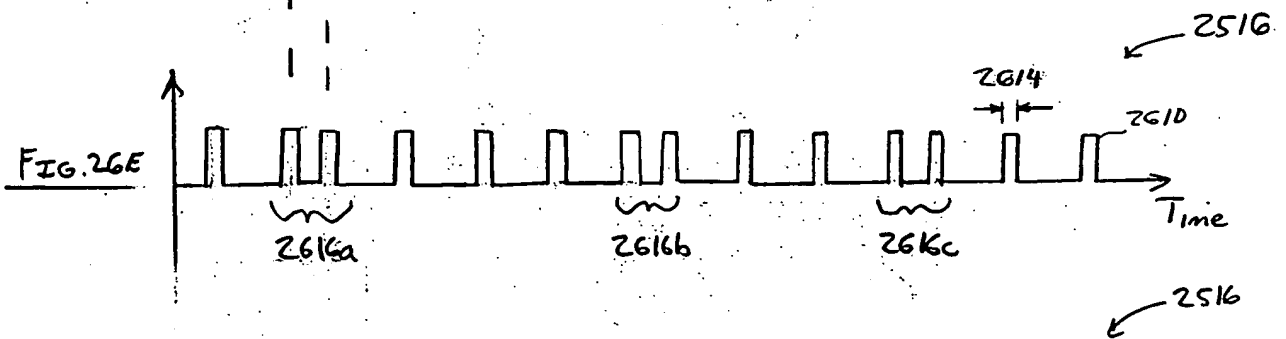
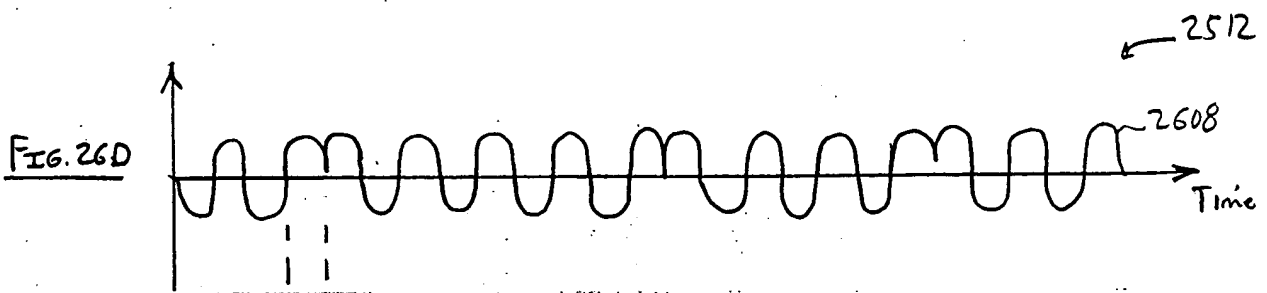
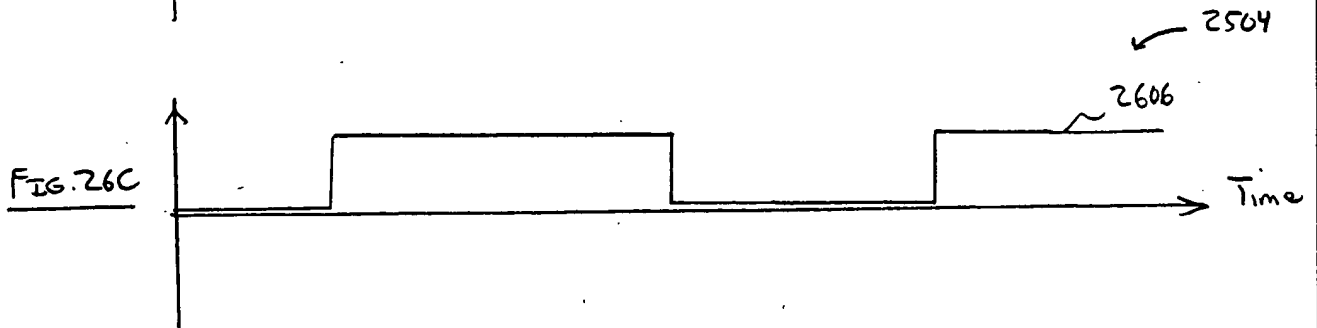
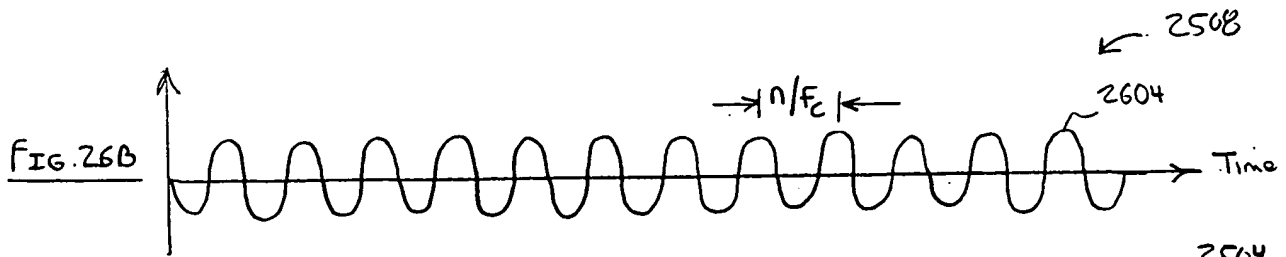
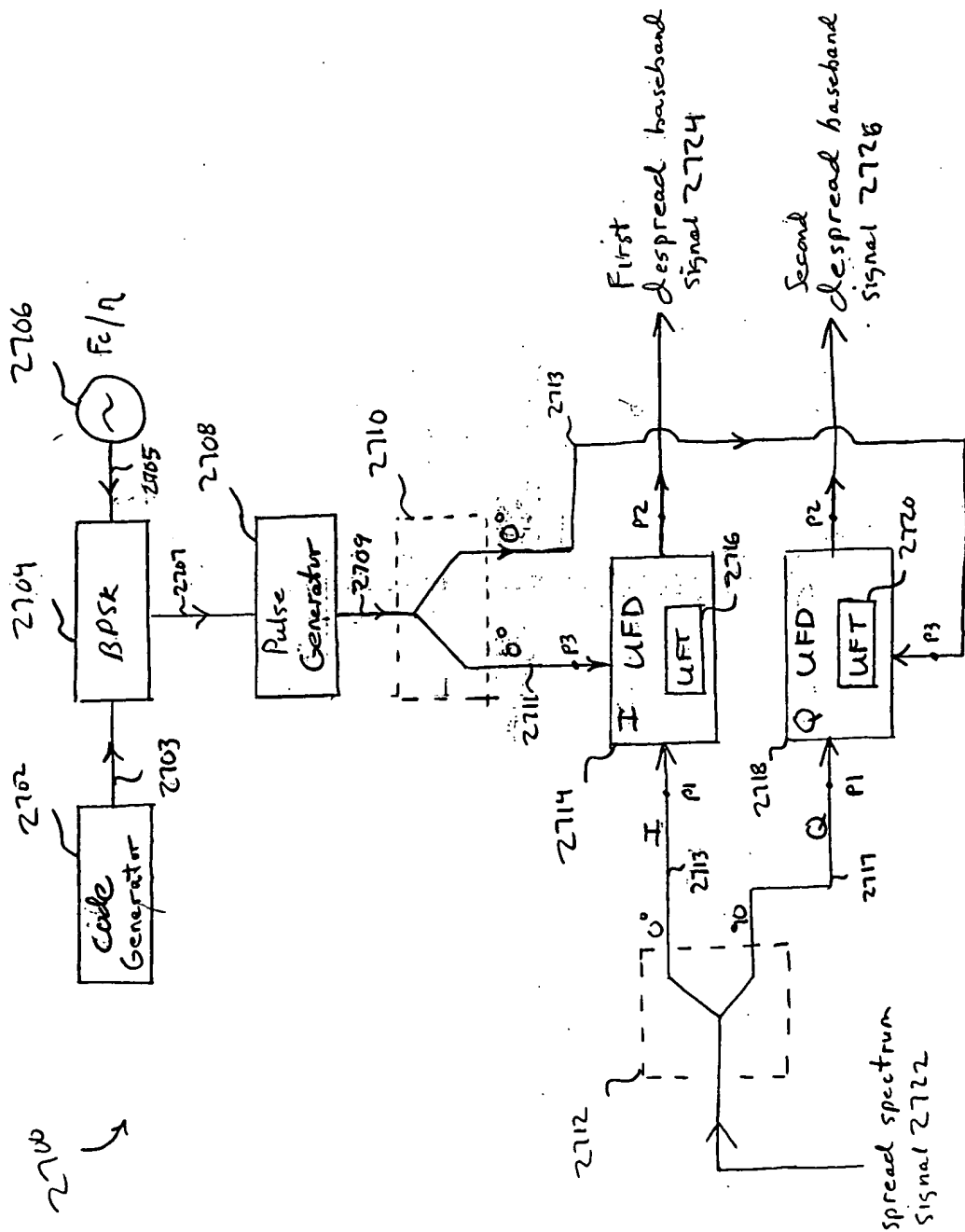


FIG. 25J

13,192 500 SHEETS FULLY 5 SQUARE
42,381 500 SHEETS EYE-EASE 5 SQUARE
42,382 100 SHEETS EYE-EASE 5 SQUARE
42,383 200 SHEETS EYE-EASE 5 SQUARE
42,384 400 SHEETS EYE-EASE 5 SQUARE
42,385 800 SHEETS EYE-EASE 5 SQUARE
42,386 1600 SHEETS EYE-EASE 5 SQUARE
42,387 3200 SHEETS EYE-EASE 5 SQUARE
42,388 6400 SHEETS EYE-EASE 5 SQUARE
42,389 12800 SHEETS EYE-EASE 5 SQUARE
42,390 25600 SHEETS EYE-EASE 5 SQUARE
42,391 51200 SHEETS EYE-EASE 5 SQUARE
42,392 102400 SHEETS EYE-EASE 5 SQUARE
42,393 204800 SHEETS EYE-EASE 5 SQUARE
42,394 409600 SHEETS EYE-EASE 5 SQUARE
42,395 819200 SHEETS EYE-EASE 5 SQUARE
42,396 1638400 SHEETS EYE-EASE 5 SQUARE
42,397 3276800 SHEETS EYE-EASE 5 SQUARE
42,398 6553600 SHEETS EYE-EASE 5 SQUARE
42,399 13107200 SHEETS EYE-EASE 5 SQUARE
42,400 26214400 SHEETS EYE-EASE 5 SQUARE
42,401 52428800 SHEETS EYE-EASE 5 SQUARE
42,402 104857600 SHEETS EYE-EASE 5 SQUARE
42,403 209715200 SHEETS EYE-EASE 5 SQUARE
42,404 419430400 SHEETS EYE-EASE 5 SQUARE
42,405 838860800 SHEETS EYE-EASE 5 SQUARE
42,406 1677721600 SHEETS EYE-EASE 5 SQUARE
42,407 3355443200 SHEETS EYE-EASE 5 SQUARE
42,408 6710886400 SHEETS EYE-EASE 5 SQUARE
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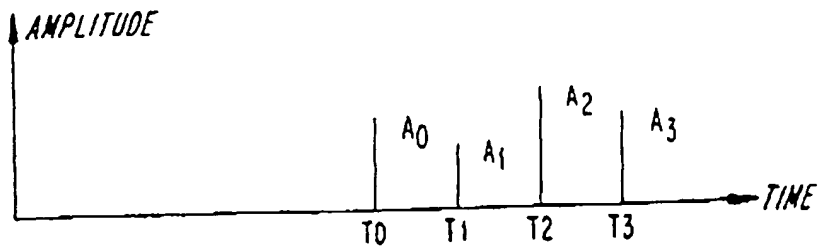


FIG. 28A

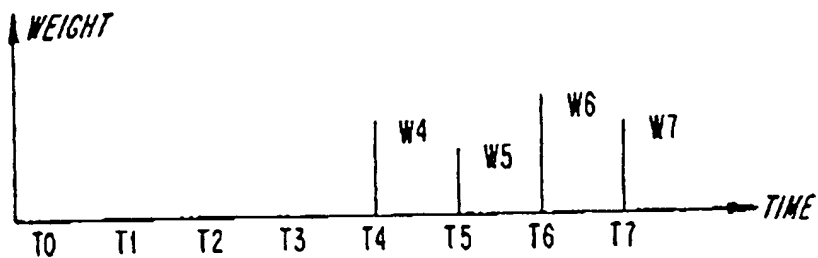


FIG. 28B

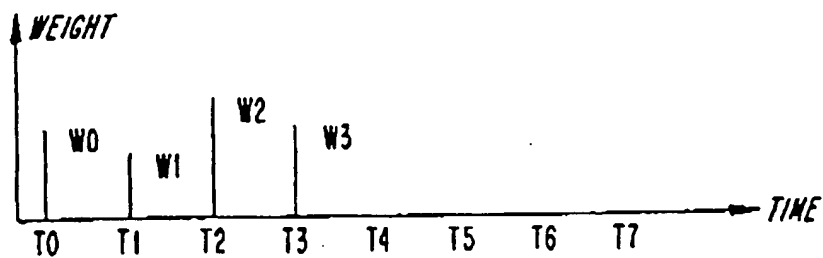


FIG. 28C

004760 38732560

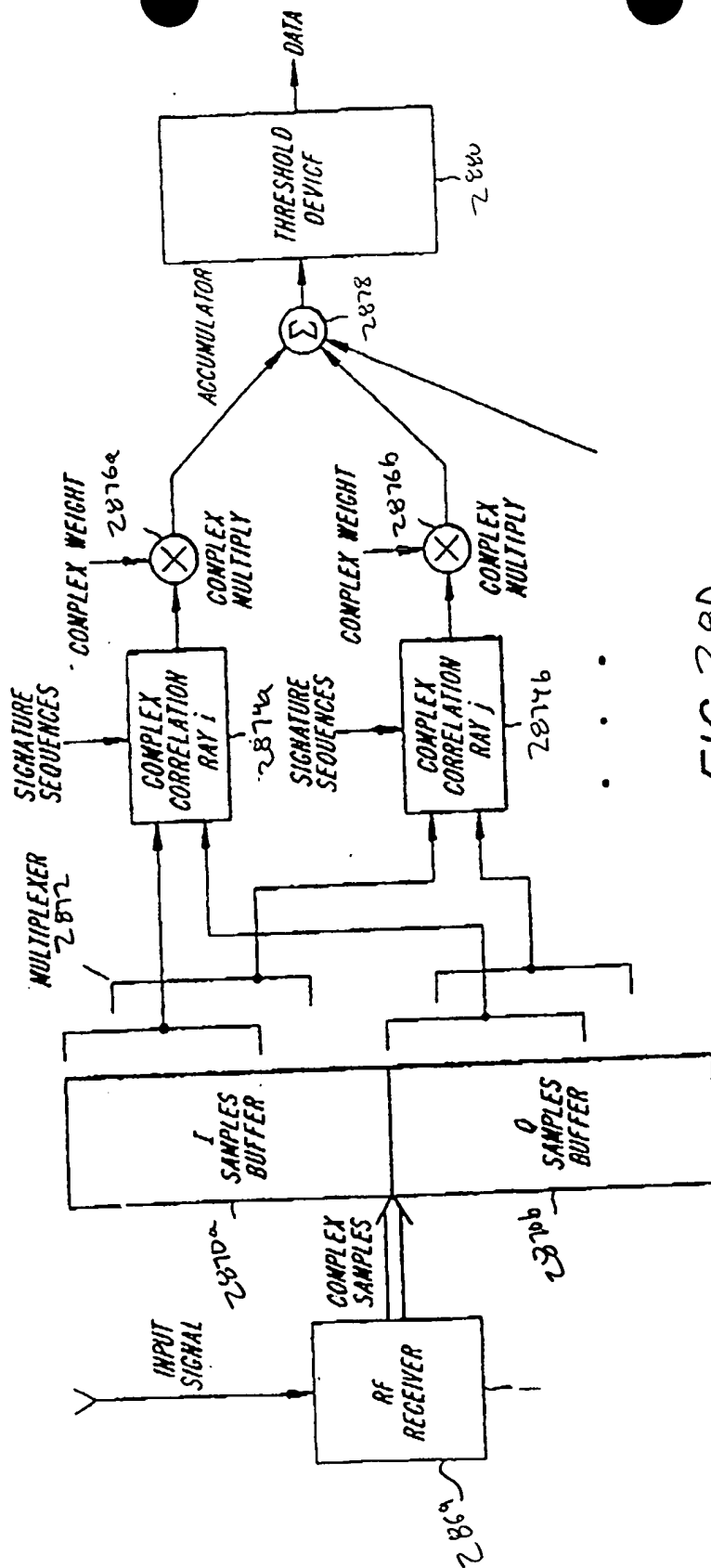


FIG. 28D

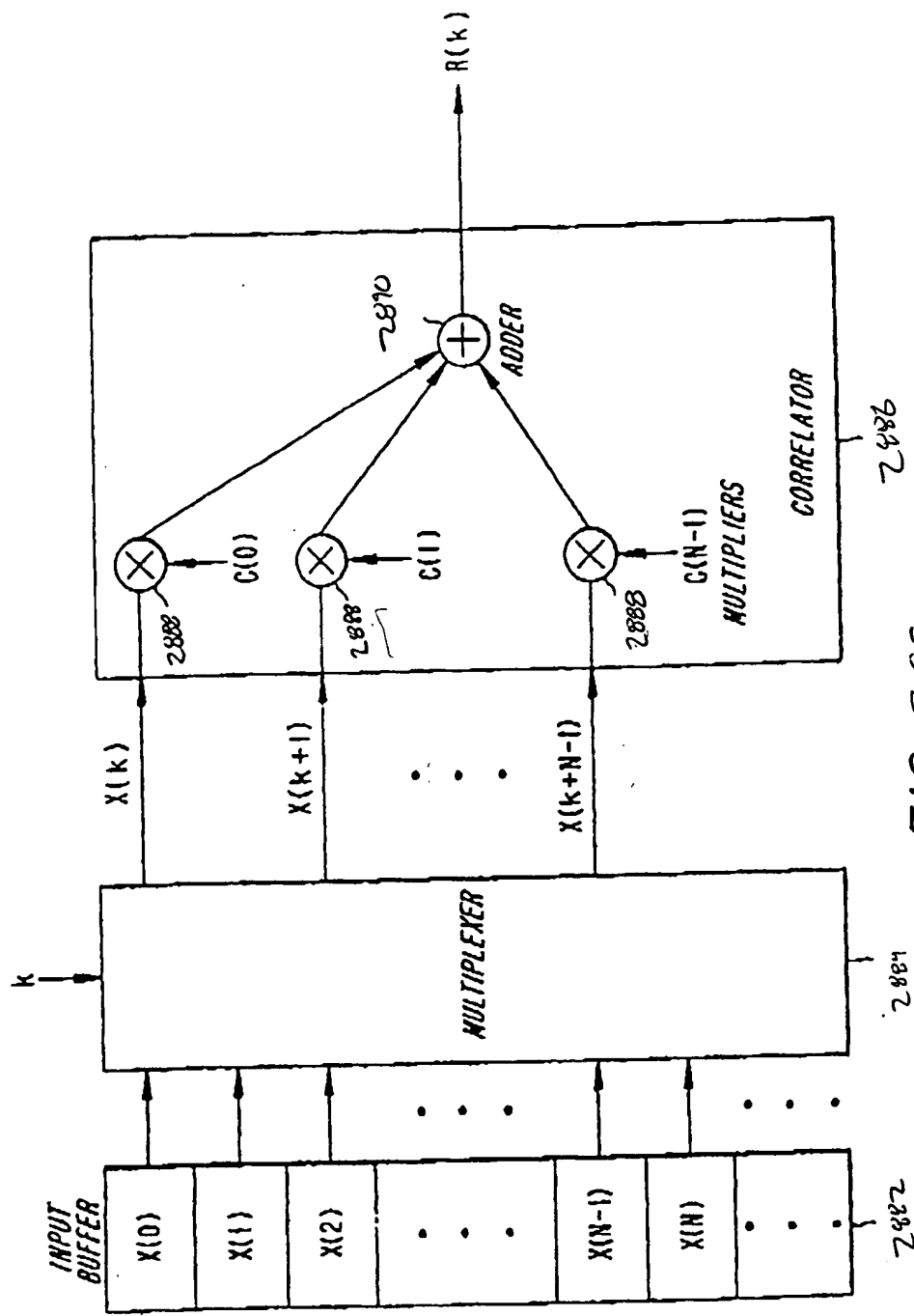


FIG. 28E

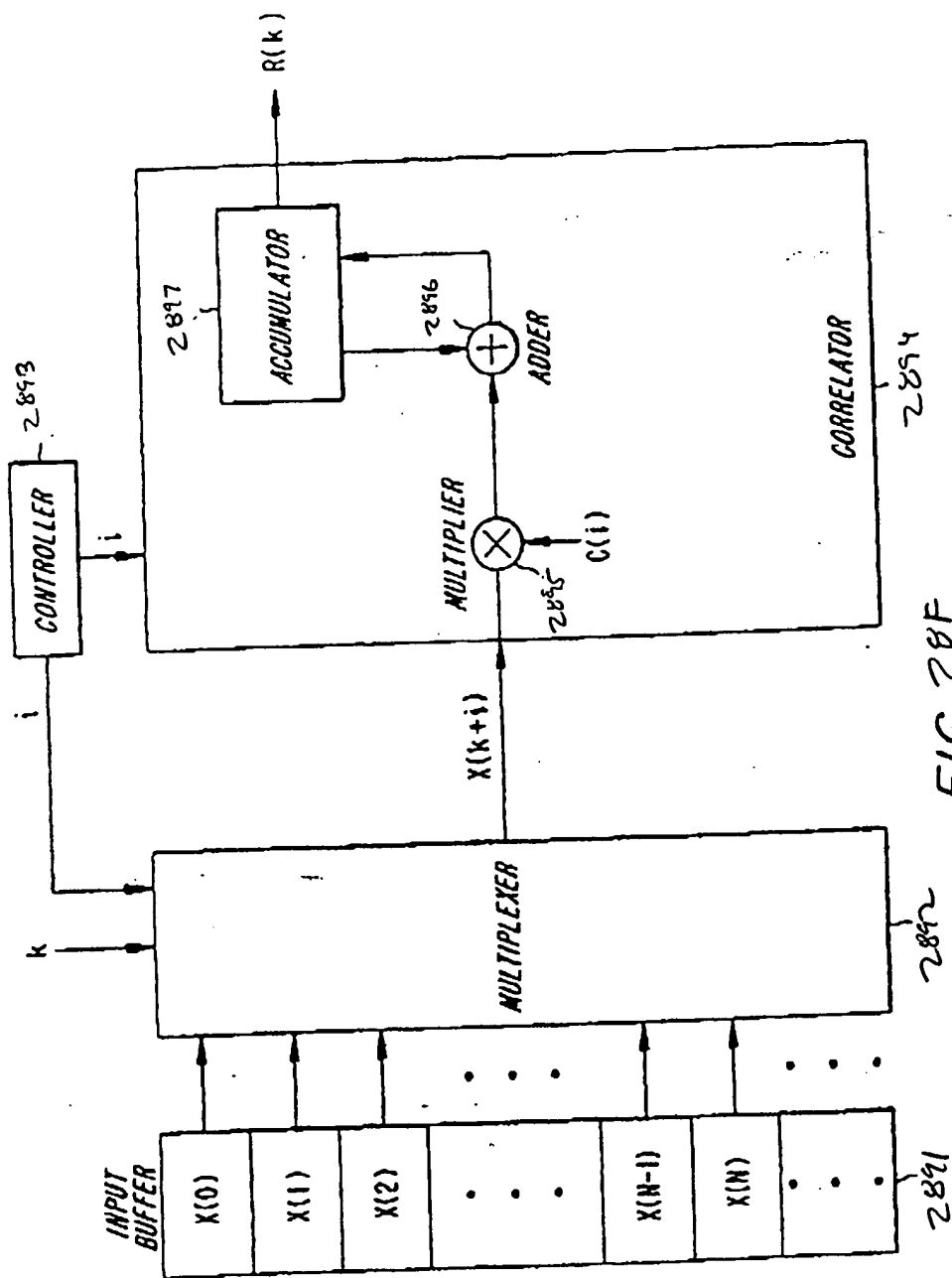


FIG. 28F

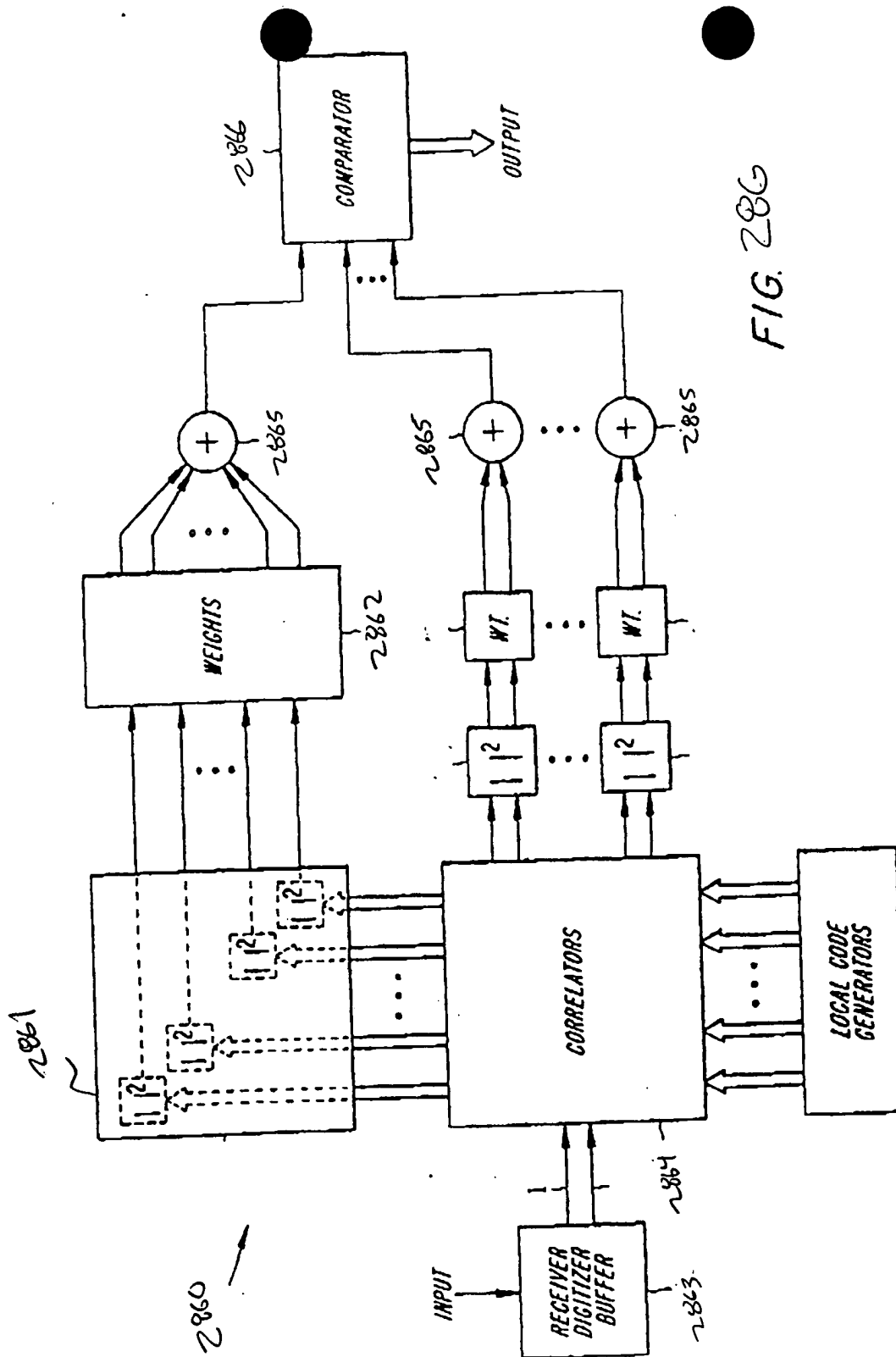


FIG. 286

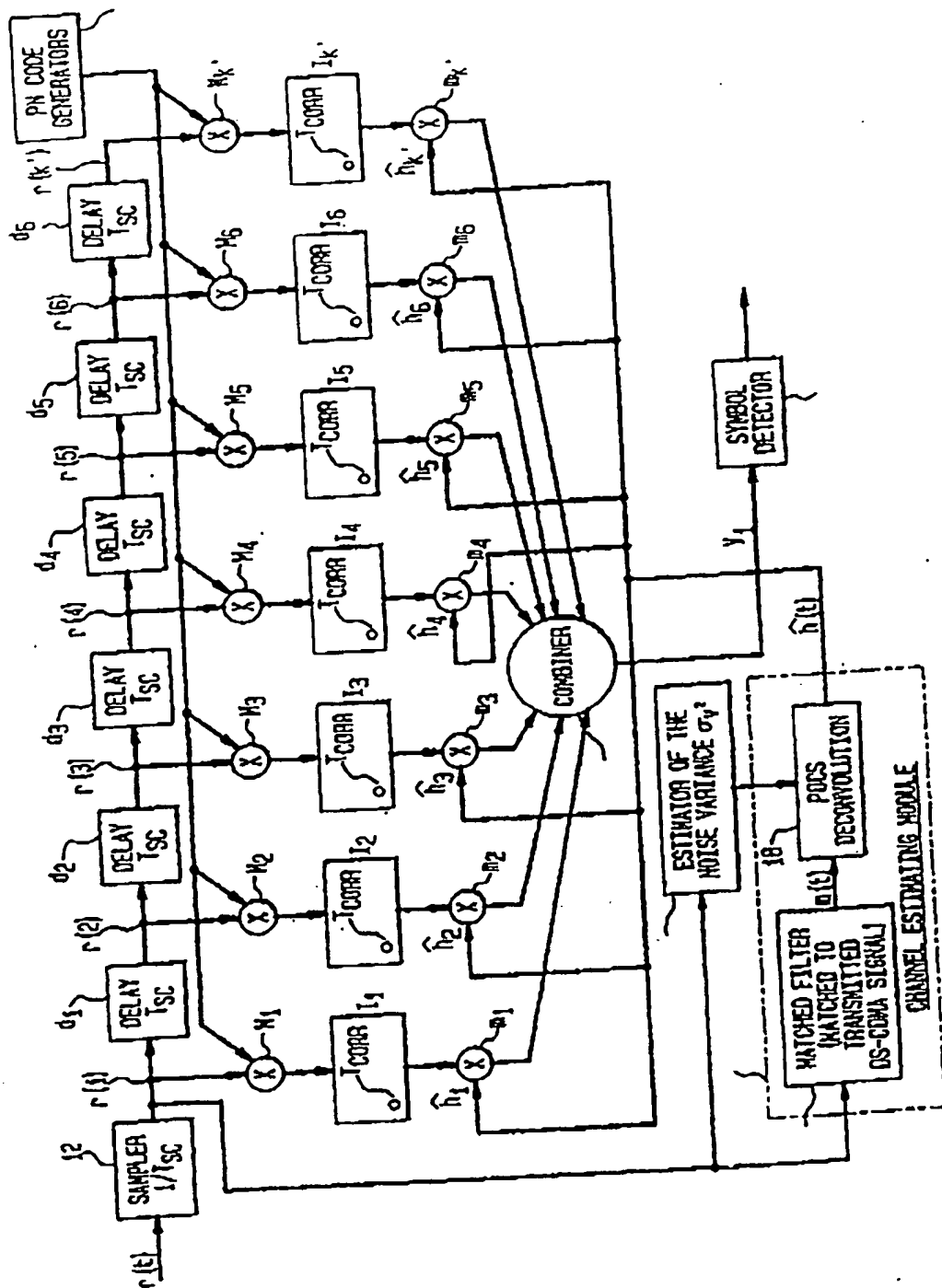
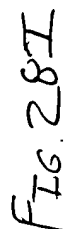


FIG. 2.8H



2906b

00110101 00110101

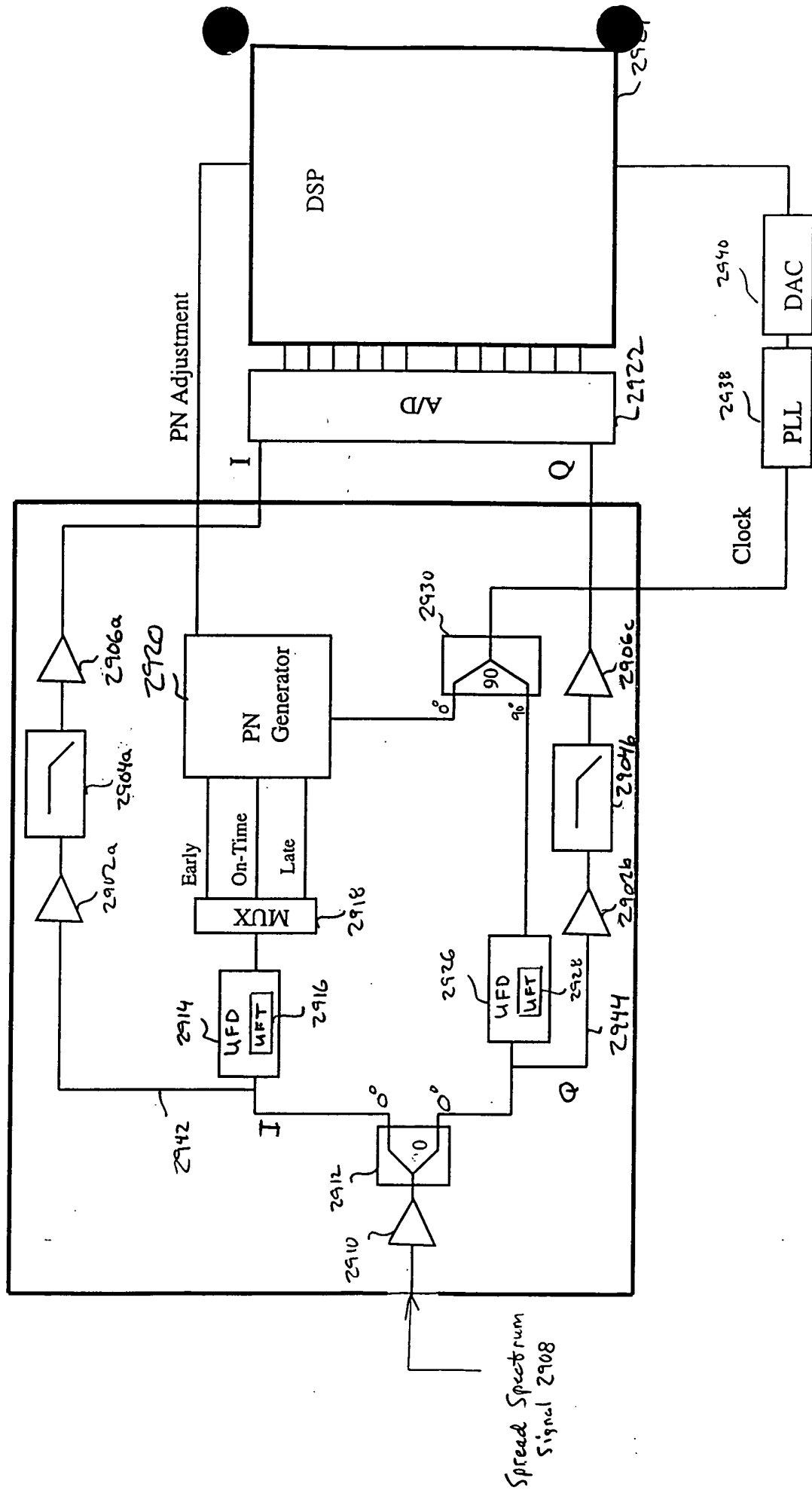


FIG. 29

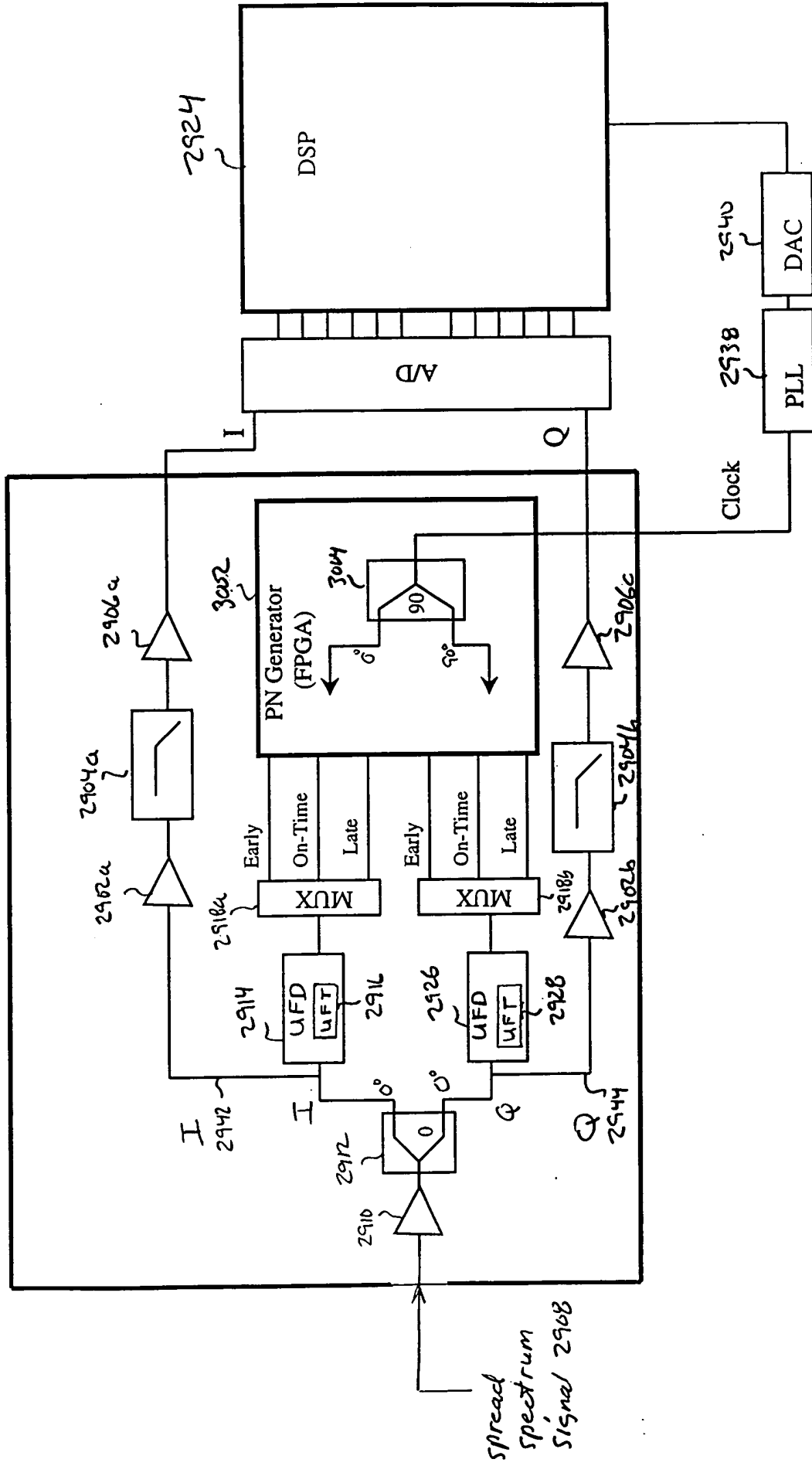


FIG. 30

004720" 50752560

3100

uF4
3101

3102

Code
Generator

3103

BPSK

3104

Pulse
Shaper

3105

Control
Signal
3109

Port 3

3106

f_0

Port 1

Port 2

3112

Bias Signal

3116

uF4
3114

3117

3120

3122

3118

3110

spread spectrum
signal 3126

Baseband
Signal 3124

FIG. 31A

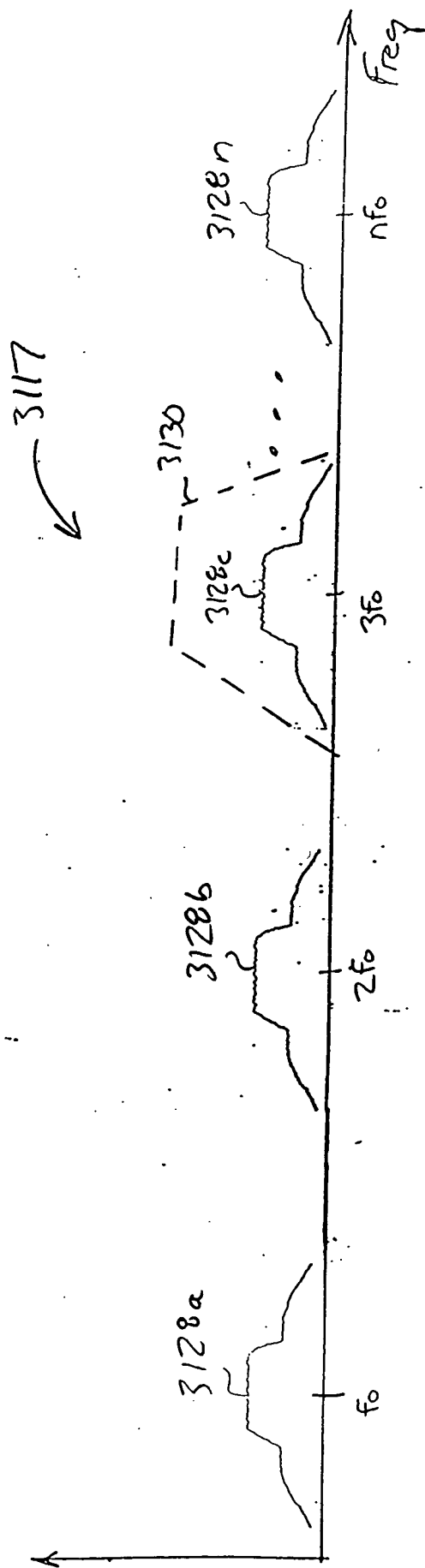

[illegible]

FIG. 3/B

43-713	600 B-EETS, FILER	5 SQUAR
43-361	60 B-EETS EYE-EASE	5 SQUAR
43-352	100 B-EETS EYE-EASE	5 SQUAR
43-359	200 B-EETS EYE-EASE	5 SQUAR
43-302	100 RECYCLED WHITE	5 SQUAR
43-300	200 RECYCLED WHITE	5 SQUAR

Made in U.S.A.



13-782 500 SHEETS, FILLER 5 SQUARE
 42-381 50 SHEETS, EYE-EASE 5 SQUARE
 42-382 100 SHEETS, EYE-EASE 5 SQUARE
 42-383 100 SHEETS, EYE-EASE 5 SQUARE
 42-384 100 SHEETS, EYE-EASE 5 SQUARE
 42-385 100 RECYCLED WHITE 5 SQUARE
 42-386 200 RECYCLED WHITE 5 SQUARE
 Made in U.S.A.



004450 531560

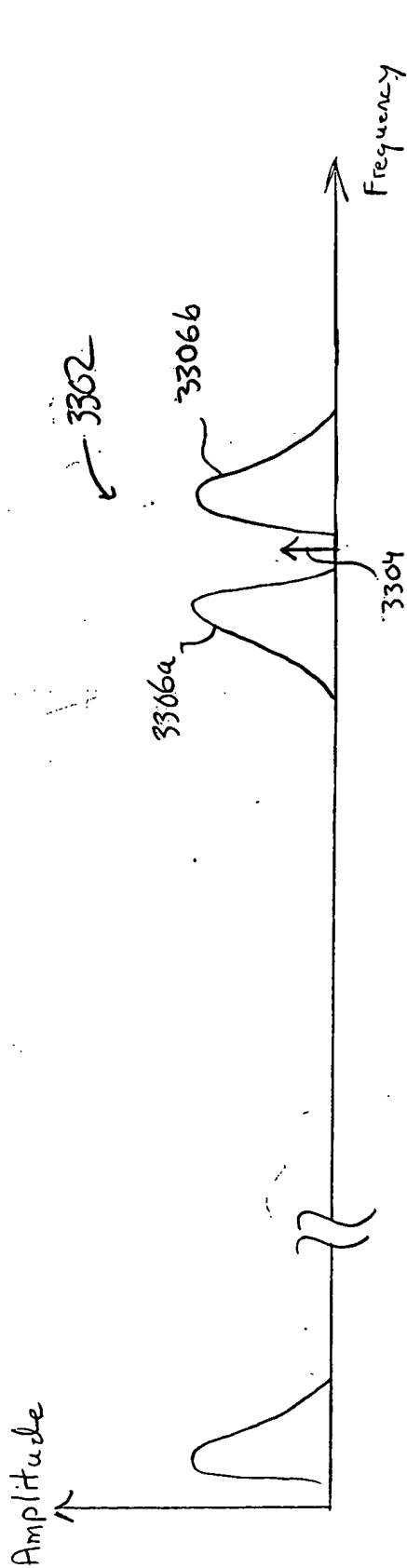


FIG. 33A

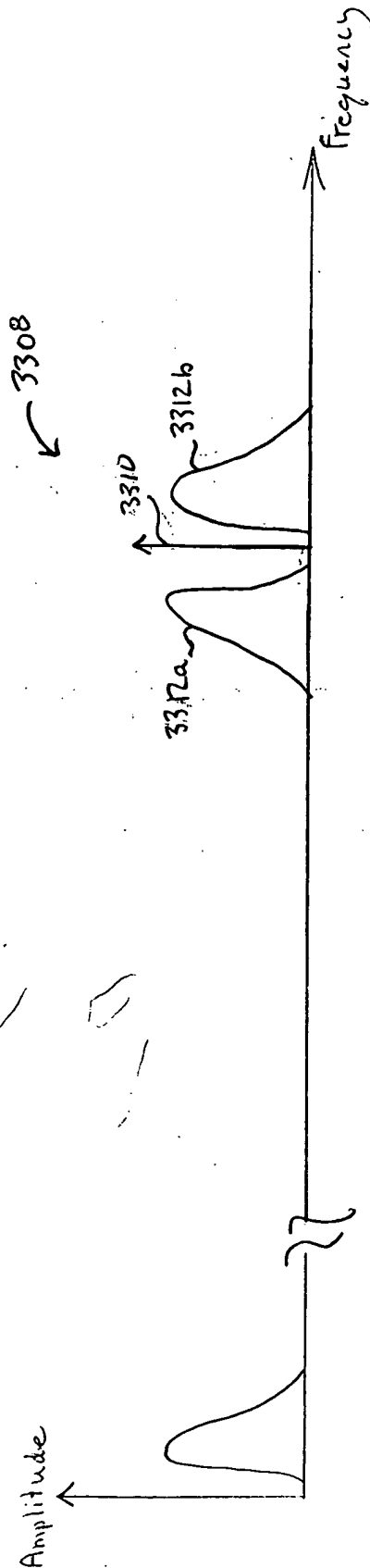


FIG. 33B

13 782 50 SHEETS FILED 5 SQUARE
42-382 100 SHEETS FILED 5 SQUARE
42-382 200 SHEETS FILED 5 SQUARE
42-382 200 RECYCLED WHITE 5 SQUARE
MADE IN U.S.A.

3402
↓

CNTL
Signal 3423

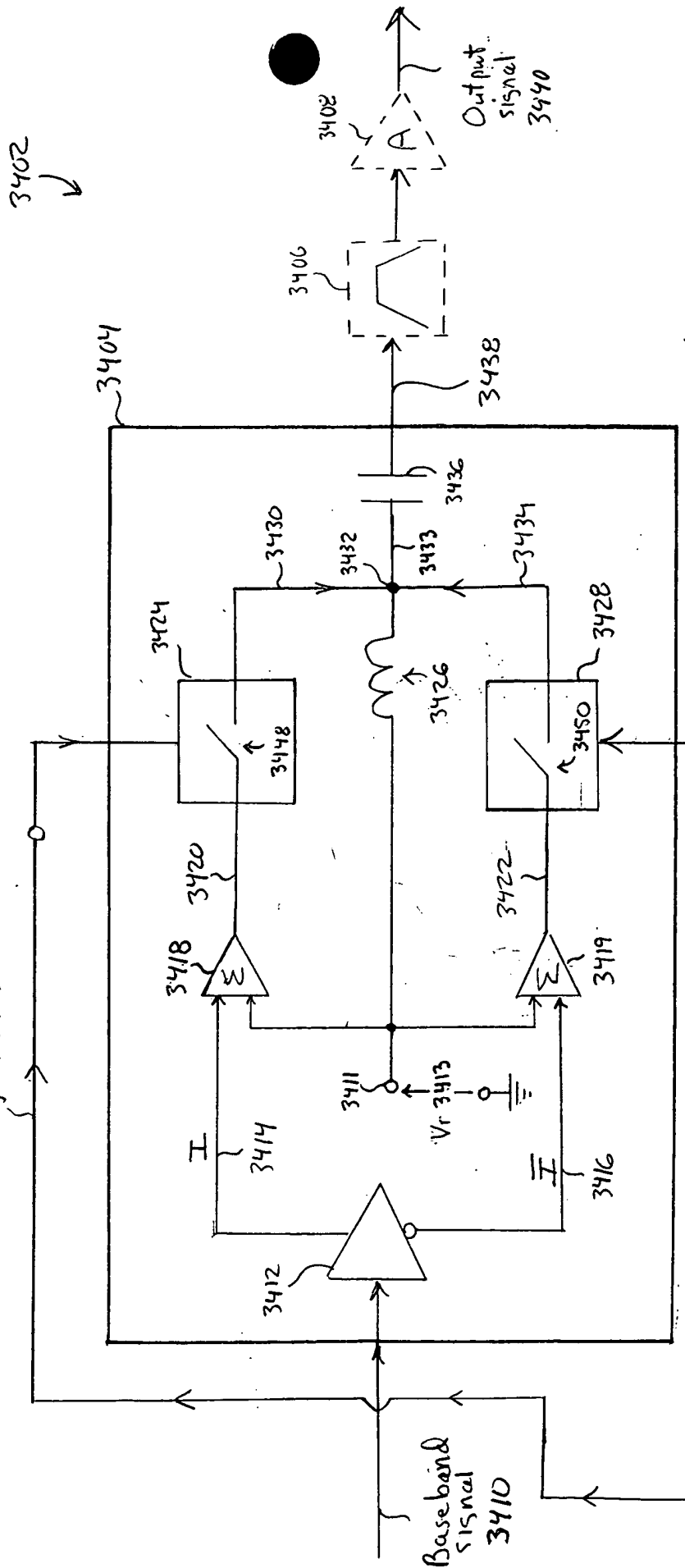
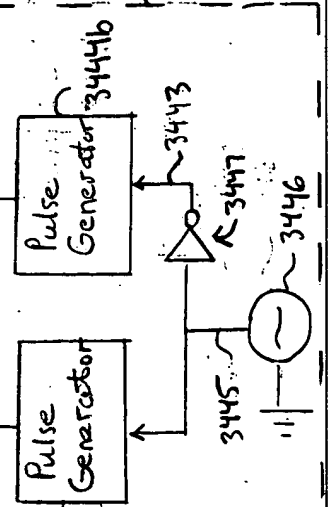


FIG. 34A

CNTL
SWGL
3427

3442



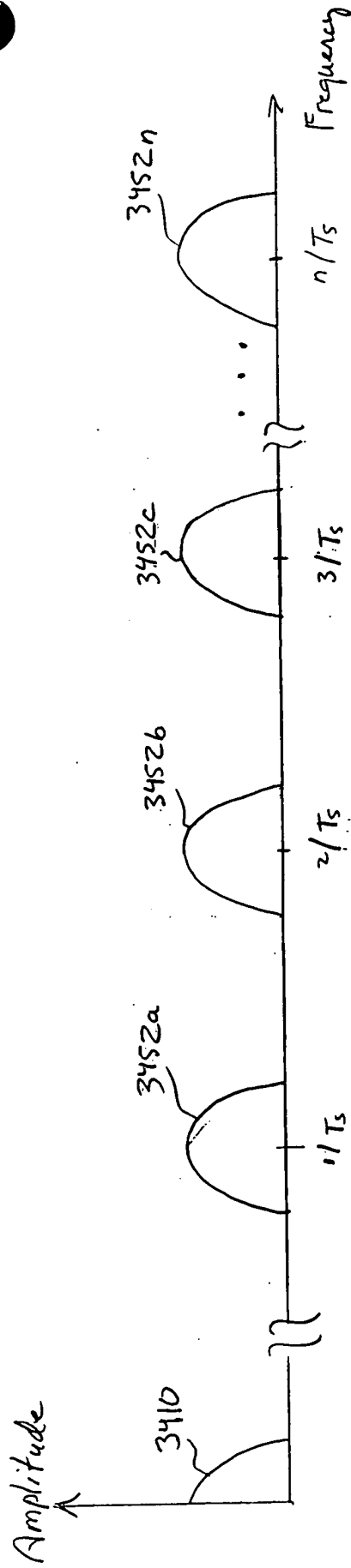


FIG. 341B

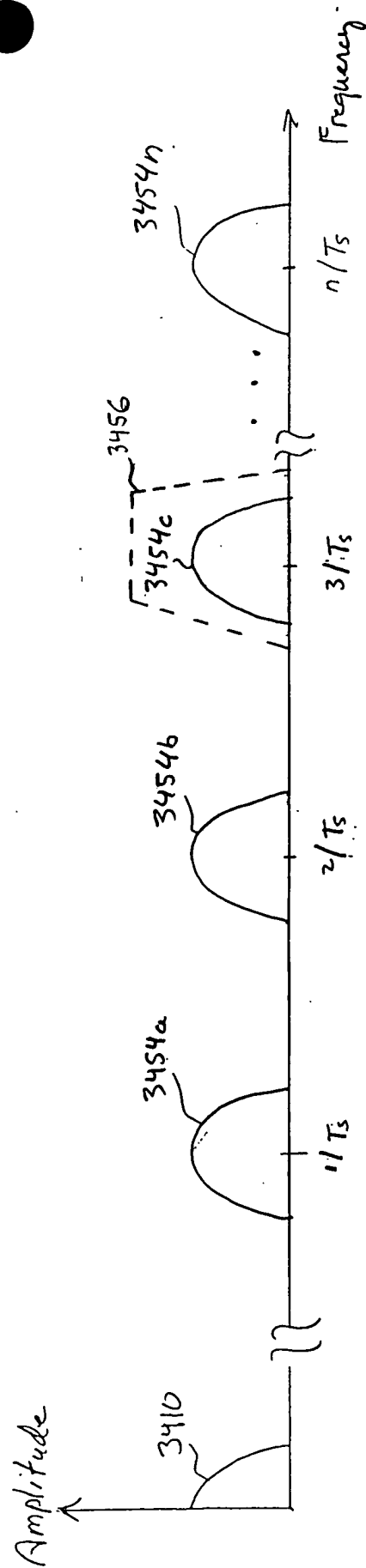


FIG. 34C

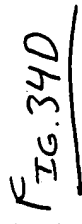


FIG. 35A

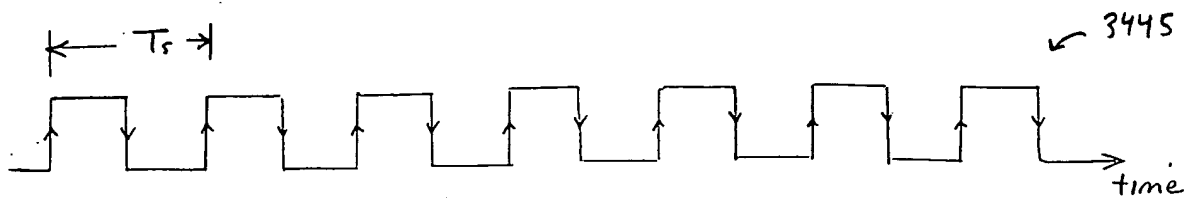


FIG. 35B

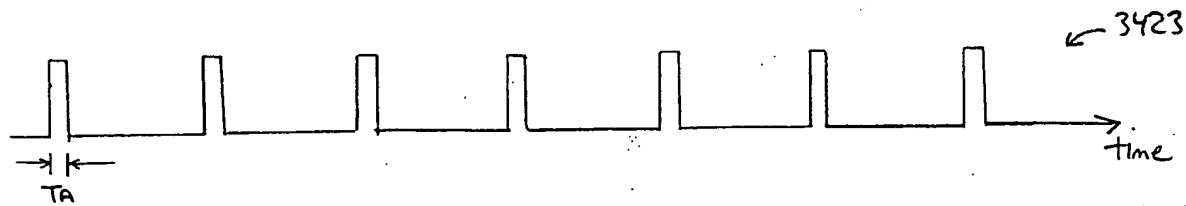


FIG. 35C



FIG. 35D

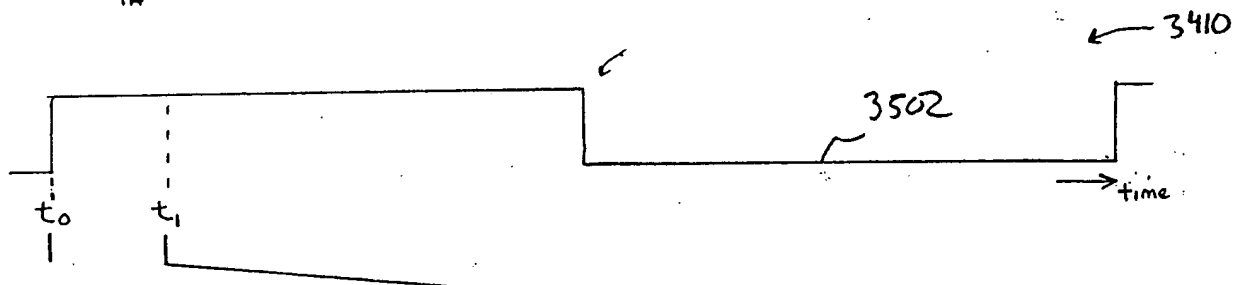


FIG. 35E

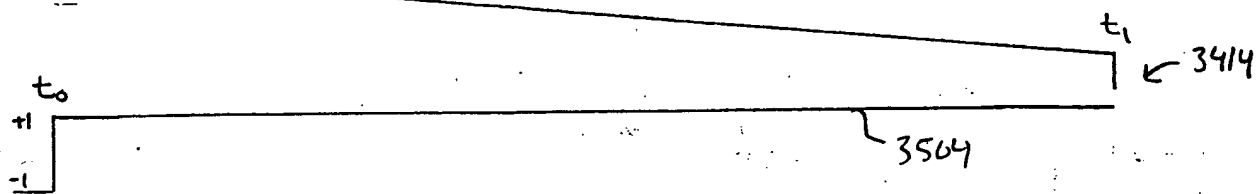


FIG. 35F

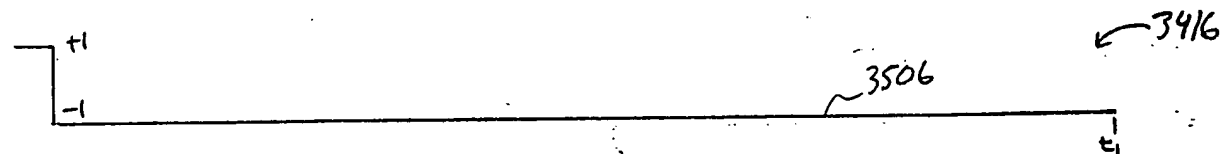


FIG. 35G



FIG. 35H

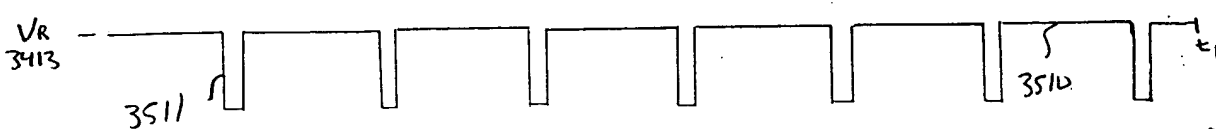
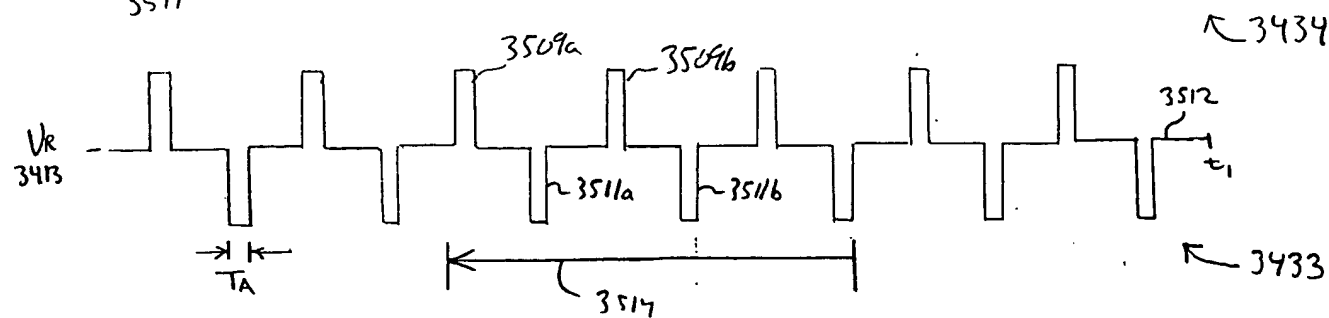


FIG. 35I



00440 5065560

Aperture = 500ps

Fundamental Clock = 200Mhz (5th Subharmonic)

Square Wave Frequency = 200Mhz

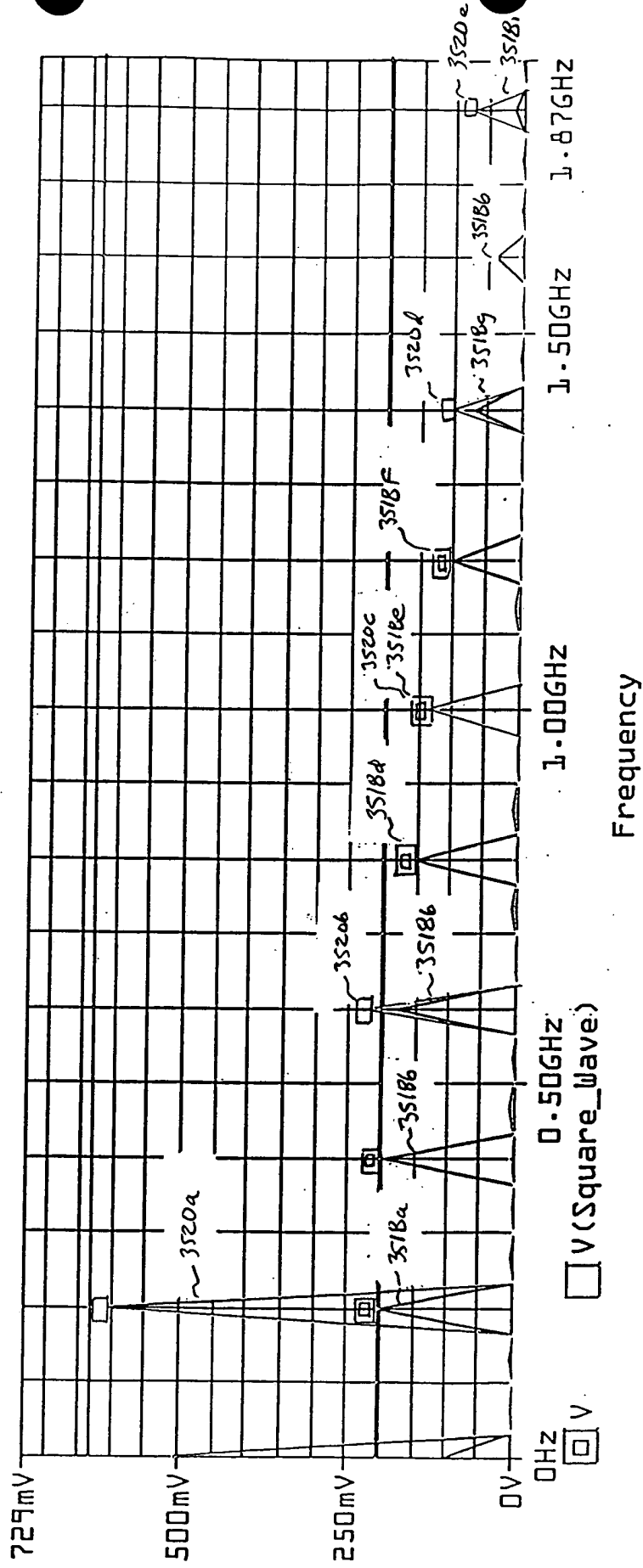
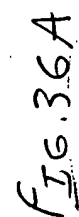
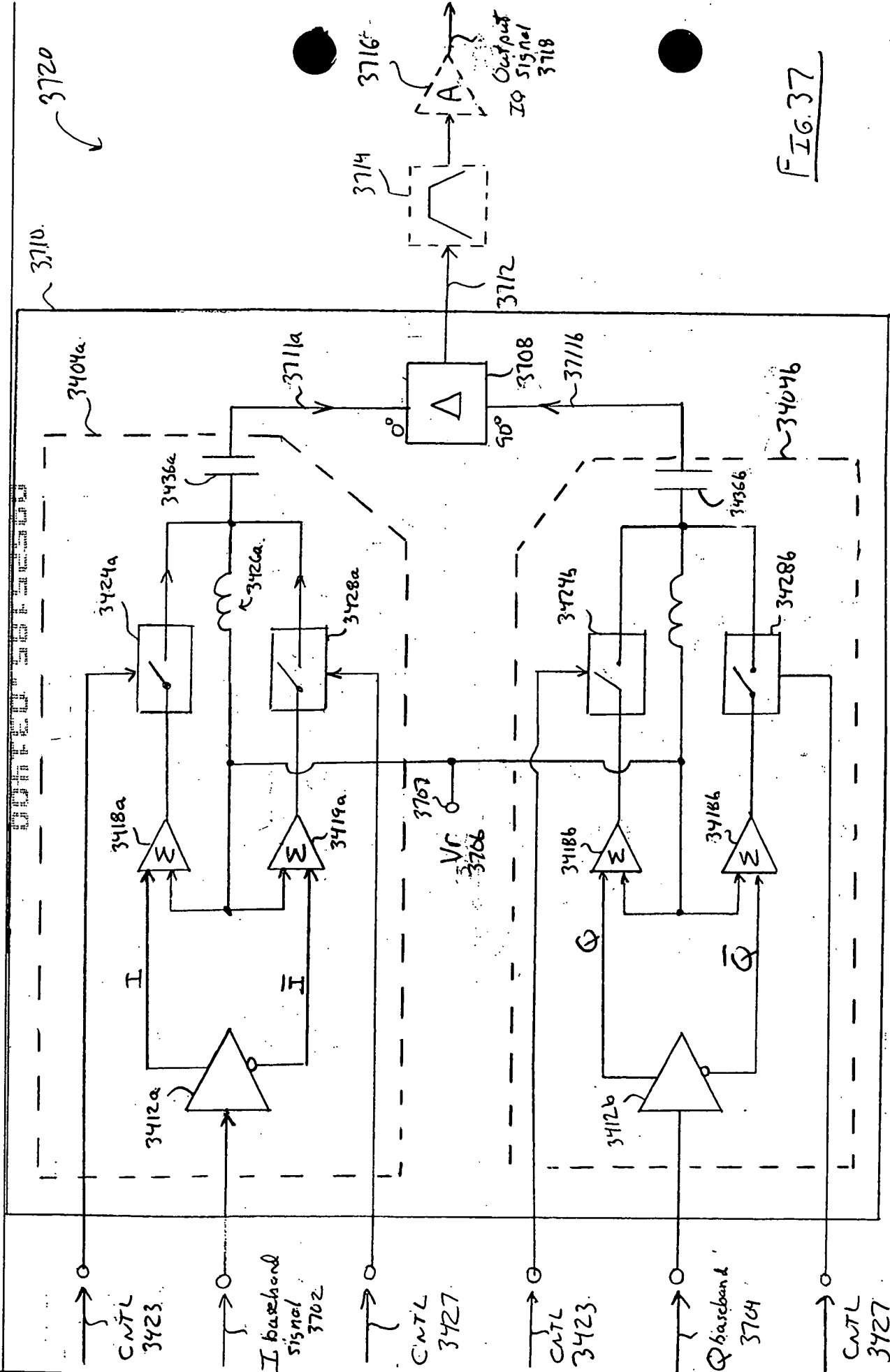


FIG. 35J

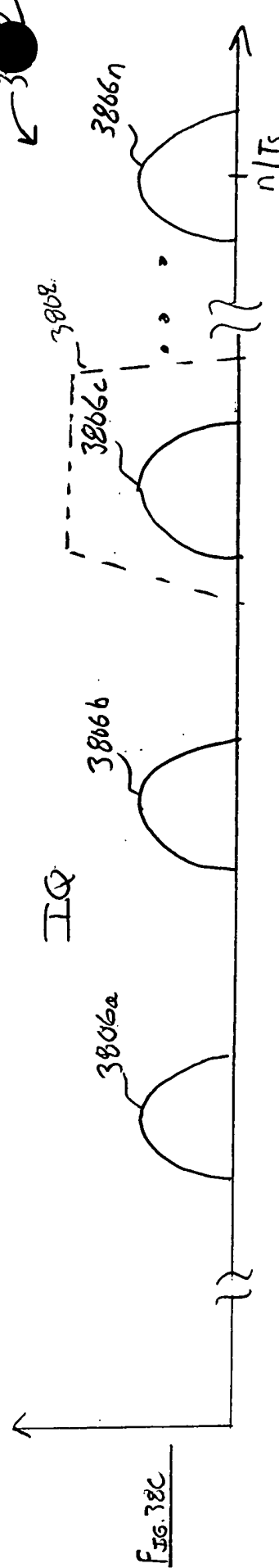
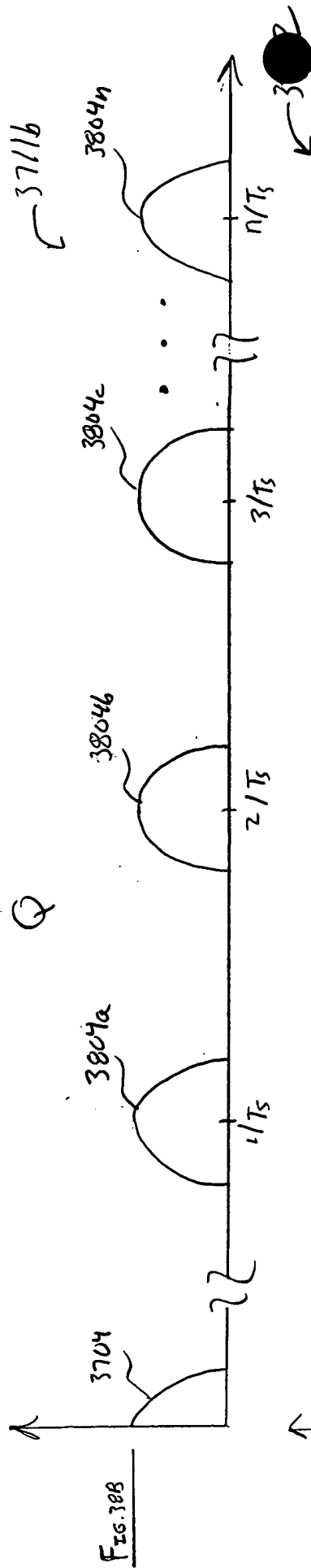
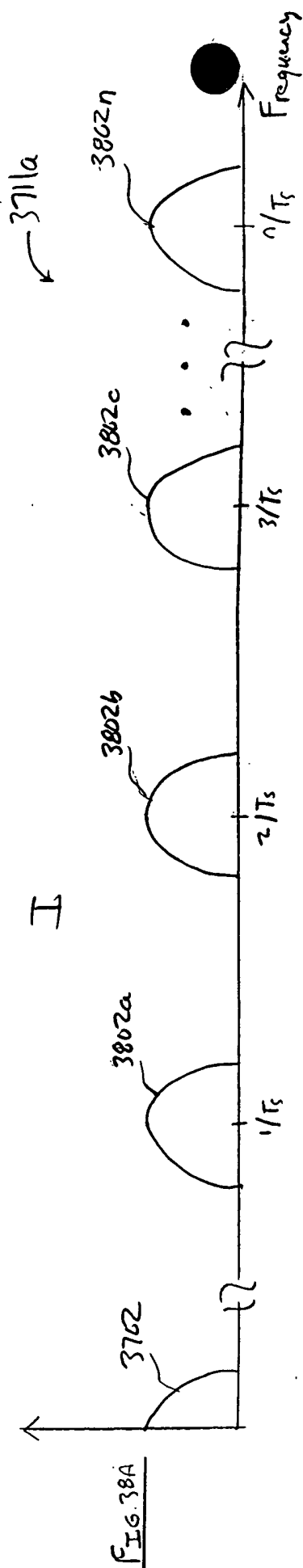






13-722 500 SHEETS, FILTER 5 SQUARE
 42-381 100 SHEETS, FIVE EASEL 5 SQUARE
 42-382 100 SHEETS, FIVE EASEL 5 SQUARE
 42-383 100 SHEETS, FIVE EASEL 5 SQUARE
 42-384 100 SHEETS, FIVE EASEL 5 SQUARE
 42-385 100 SHEETS, FIVE EASEL 5 SQUARE
 42-386 100 SHEETS, FIVE EASEL 5 SQUARE
 42-387 100 SHEETS, FIVE EASEL 5 SQUARE
 42-388 100 SHEETS, FIVE EASEL 5 SQUARE
 42-389 100 SHEETS, FIVE EASEL 5 SQUARE
 42-390 100 SHEETS, FIVE EASEL 5 SQUARE
 42-391 100 SHEETS, FIVE EASEL 5 SQUARE
 42-392 100 SHEETS, FIVE EASEL 5 SQUARE
 42-393 100 SHEETS, FIVE EASEL 5 SQUARE
 42-394 100 SHEETS, FIVE EASEL 5 SQUARE
 42-395 100 SHEETS, FIVE EASEL 5 SQUARE
 42-396 100 SHEETS, FIVE EASEL 5 SQUARE
 42-397 100 SHEETS, FIVE EASEL 5 SQUARE
 42-398 100 SHEETS, FIVE EASEL 5 SQUARE
 42-399 100 SHEETS, FIVE EASEL 5 SQUARE
 42-400 100 SHEETS, FIVE EASEL 5 SQUARE

1. *Pharmaceuticals*
 2. *Medical Devices*
 3. *Biotechnology*
 4. *Health Insurance*
 5. *Hospitals*
 6. *Pharmaceuticals*
 7. *Medical Devices*
 8. *Biotechnology*
 9. *Health Insurance*
 10. *Hospitals*
 11. *Pharmaceuticals*
 12. *Medical Devices*
 13. *Biotechnology*
 14. *Health Insurance*
 15. *Hospitals*
 16. *Pharmaceuticals*
 17. *Medical Devices*
 18. *Biotechnology*
 19. *Health Insurance*
 20. *Hospitals*
 21. *Pharmaceuticals*
 22. *Medical Devices*
 23. *Biotechnology*
 24. *Health Insurance*
 25. *Hospitals*
 26. *Pharmaceuticals*
 27. *Medical Devices*
 28. *Biotechnology*
 29. *Health Insurance*
 30. *Hospitals*
 31. *Pharmaceuticals*
 32. *Medical Devices*
 33. *Biotechnology*
 34. *Health Insurance*
 35. *Hospitals*
 36. *Pharmaceuticals*
 37. *Medical Devices*
 38. *Biotechnology*
 39. *Health Insurance*
 40. *Hospitals*
 41. *Pharmaceuticals*
 42. *Medical Devices*
 43. *Biotechnology*
 44. *Health Insurance*
 45. *Hospitals*
 46. *Pharmaceuticals*
 47. *Medical Devices*
 48. *Biotechnology*
 49. *Health Insurance*
 50. *Hospitals*
 51. *Pharmaceuticals*
 52. *Medical Devices*
 53. *Biotechnology*
 54. *Health Insurance*
 55. *Hospitals*
 56. *Pharmaceuticals*
 57. *Medical Devices*
 58. *Biotechnology*
 59. *Health Insurance*
 60. *Hospitals*
 61. *Pharmaceuticals*
 62. *Medical Devices*
 63. *Biotechnology*
 64. *Health Insurance*
 65. *Hospitals*
 66. *Pharmaceuticals*
 67. *Medical Devices*
 68. *Biotechnology*
 69. *Health Insurance*
 70. *Hospitals*
 71. *Pharmaceuticals*
 72. *Medical Devices*
 73. *Biotechnology*
 74. *Health Insurance*
 75. *Hospitals*
 76. *Pharmaceuticals*
 77. *Medical Devices*
 78. *Biotechnology*
 79. *Health Insurance*
 80. *Hospitals*
 81. *Pharmaceuticals*
 82. *Medical Devices*
 83. *Biotechnology*
 84. *Health Insurance*
 85. *Hospitals*
 86. *Pharmaceuticals*
 87. *Medical Devices*
 88. *Biotechnology*
 89. *Health Insurance*
 90. *Hospitals*
 91. *Pharmaceuticals*
 92. *Medical Devices*
 93. *Biotechnology*
 94. *Health Insurance*
 95. *Hospitals*
 96. *Pharmaceuticals*
 97. *Medical Devices*
 98. *Biotechnology*
 99. *Health Insurance*
 100. *Hospitals*



3908

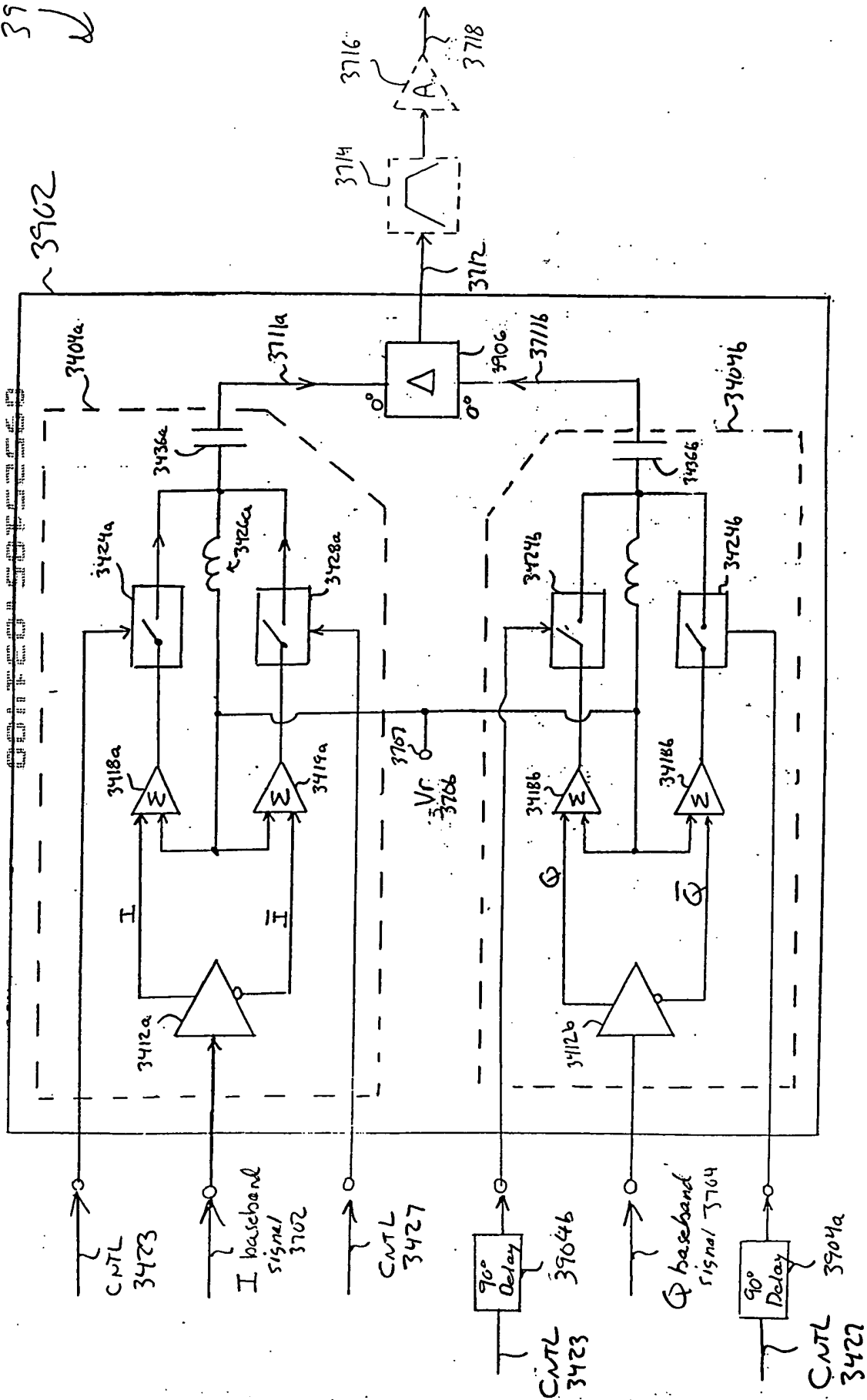


FIG. 39A

3918

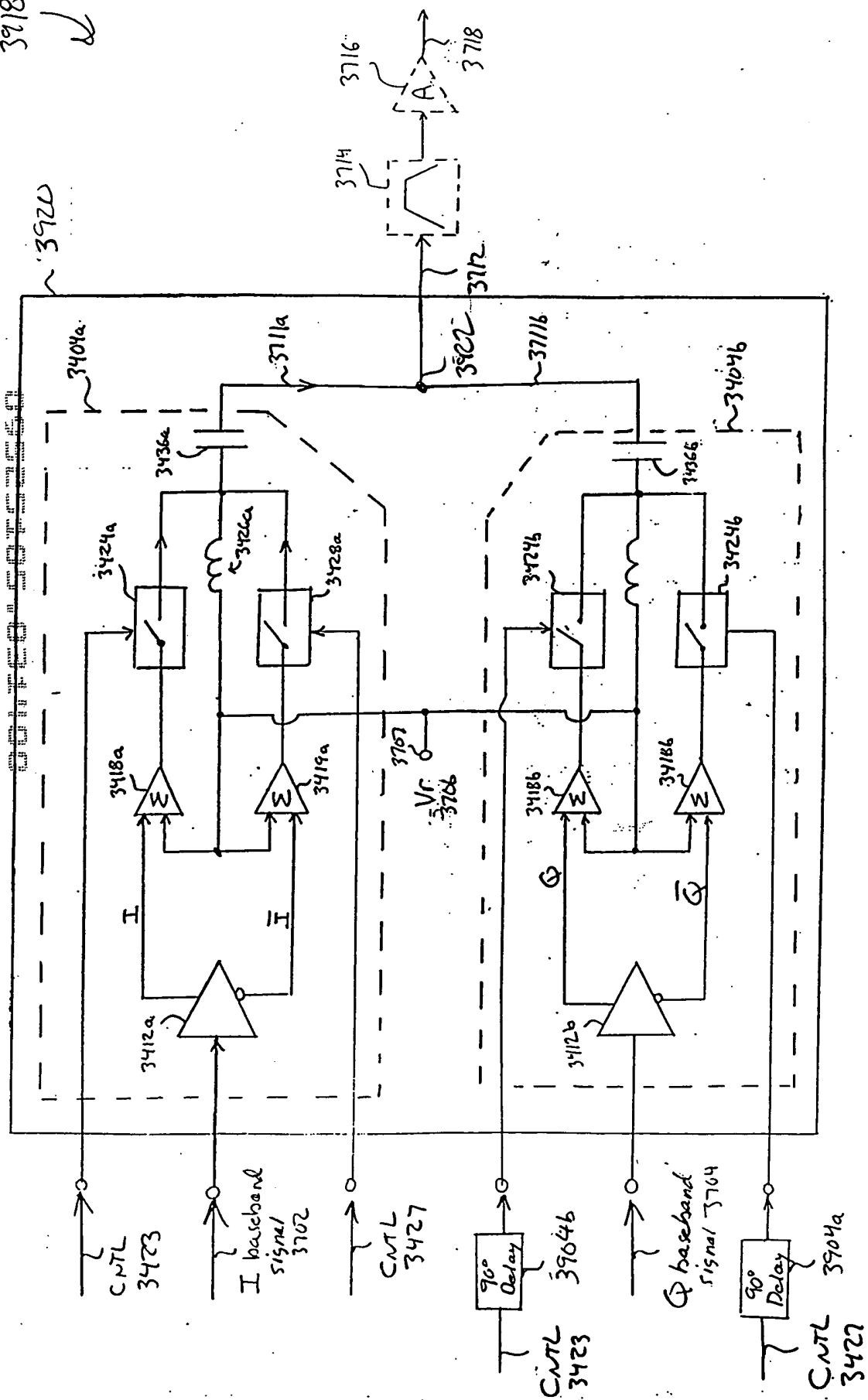
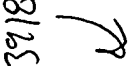


FIG. 3918

4102

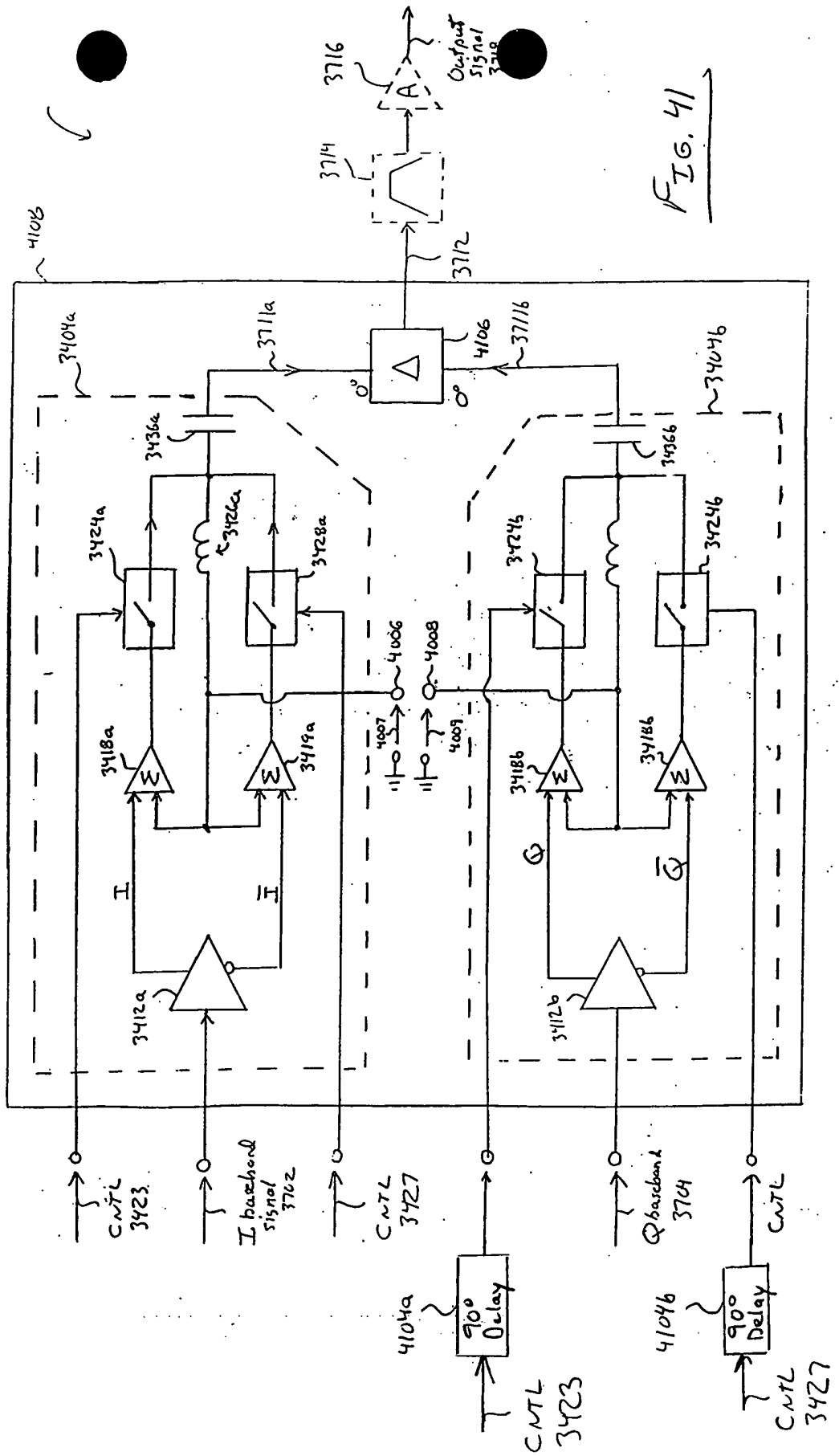


FIG. 41

AM
Shaped
BPSK
etc.

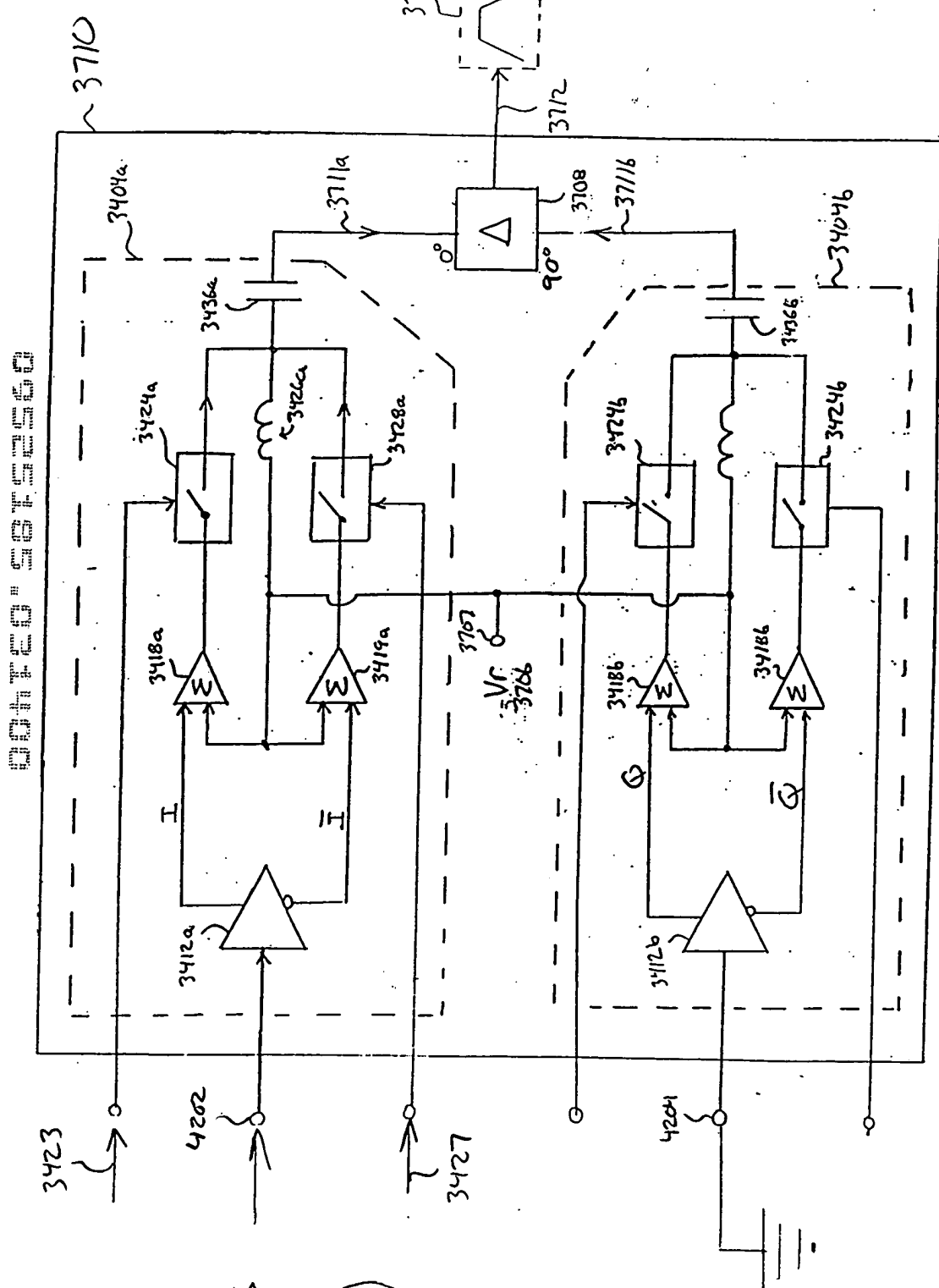


FIG. 42A

3720
↓

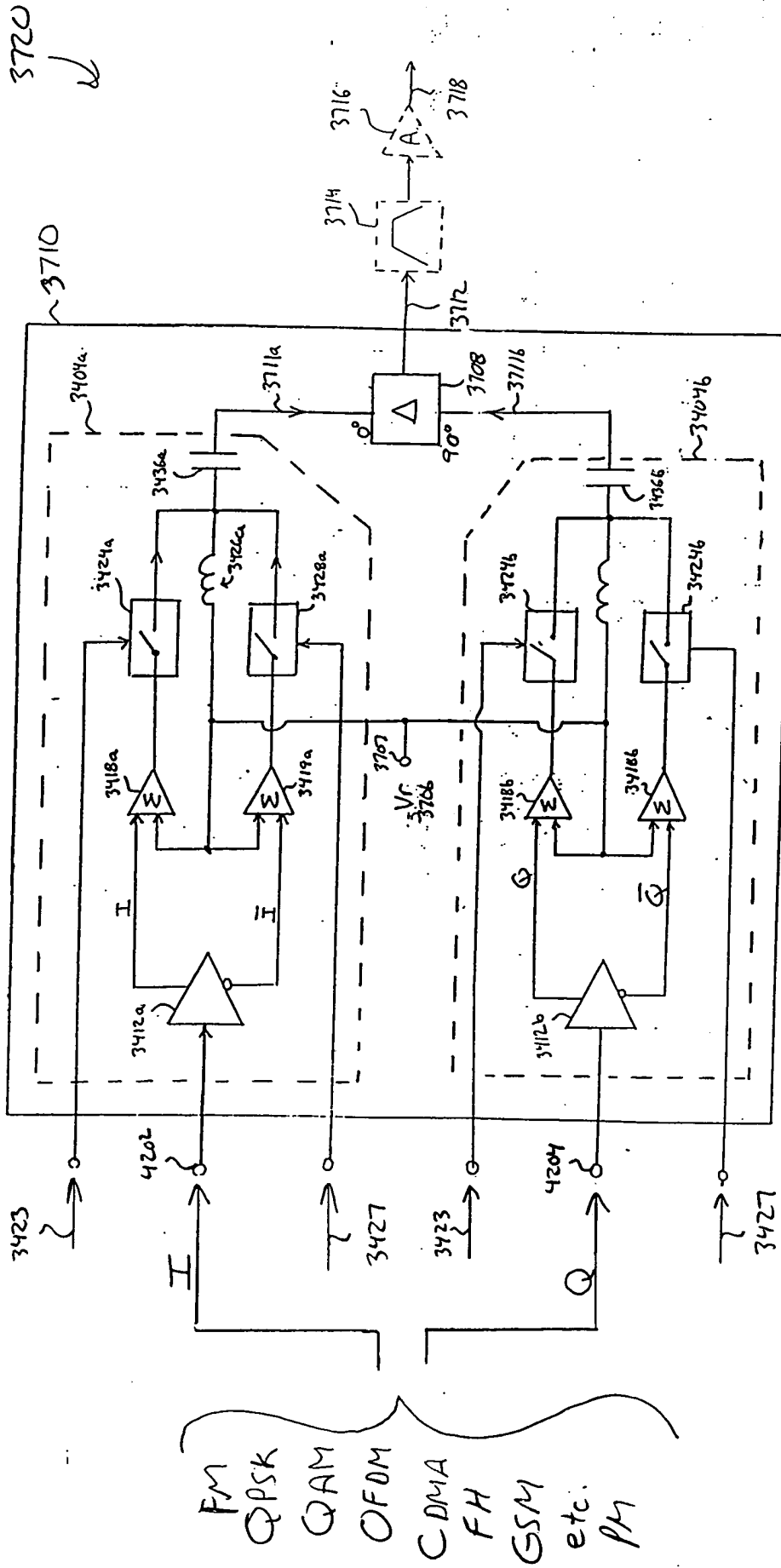


FIG. 42B

4400

0047E0 50F3250

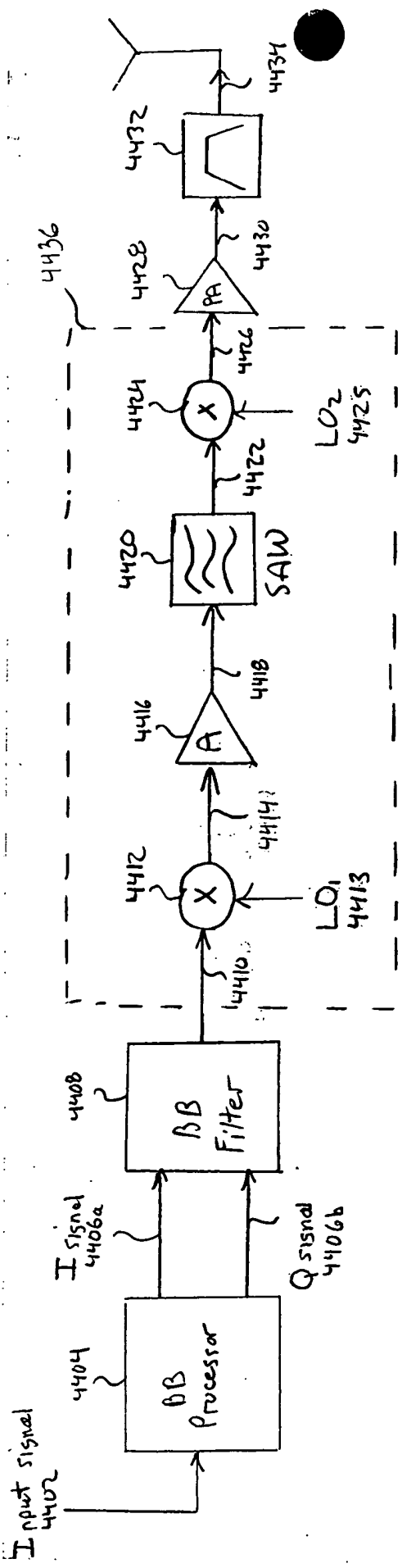


FIG. 44: Conventional Transmitter

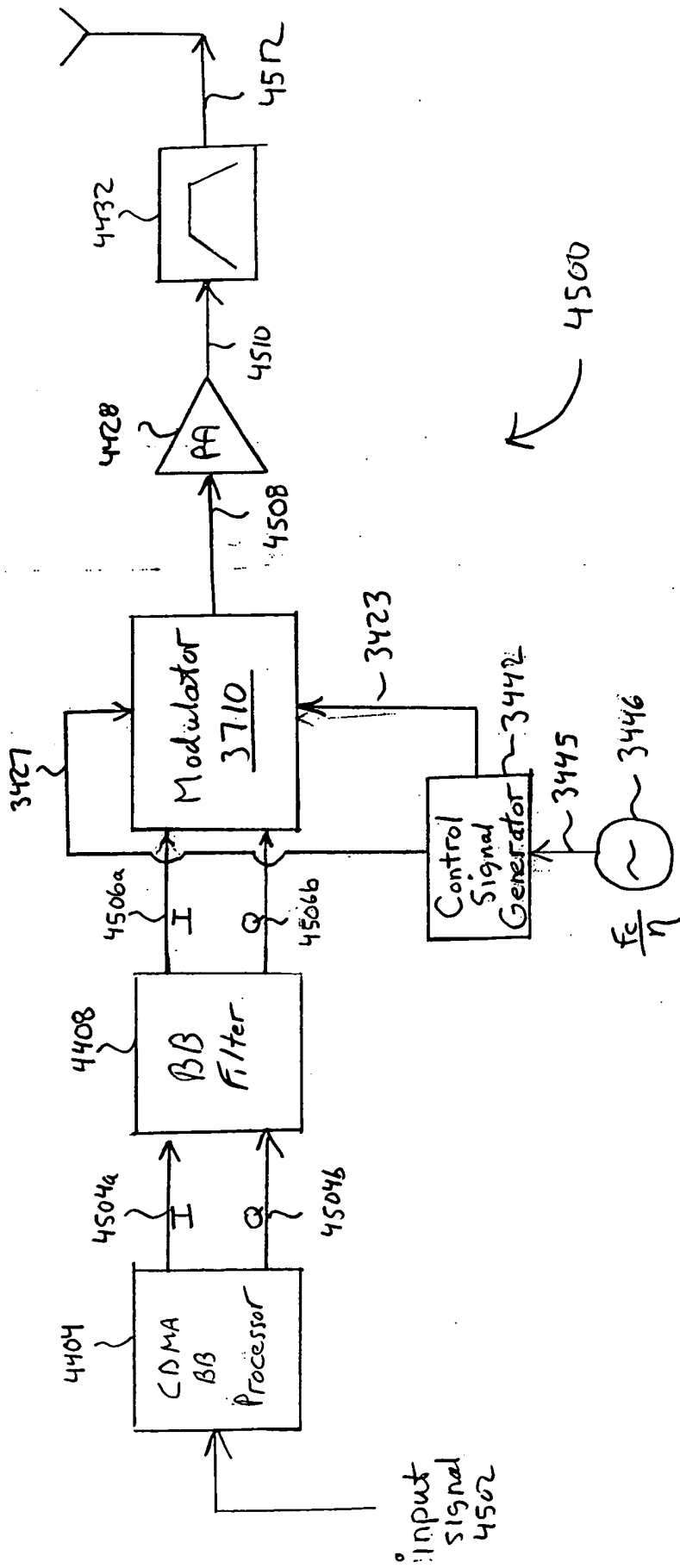
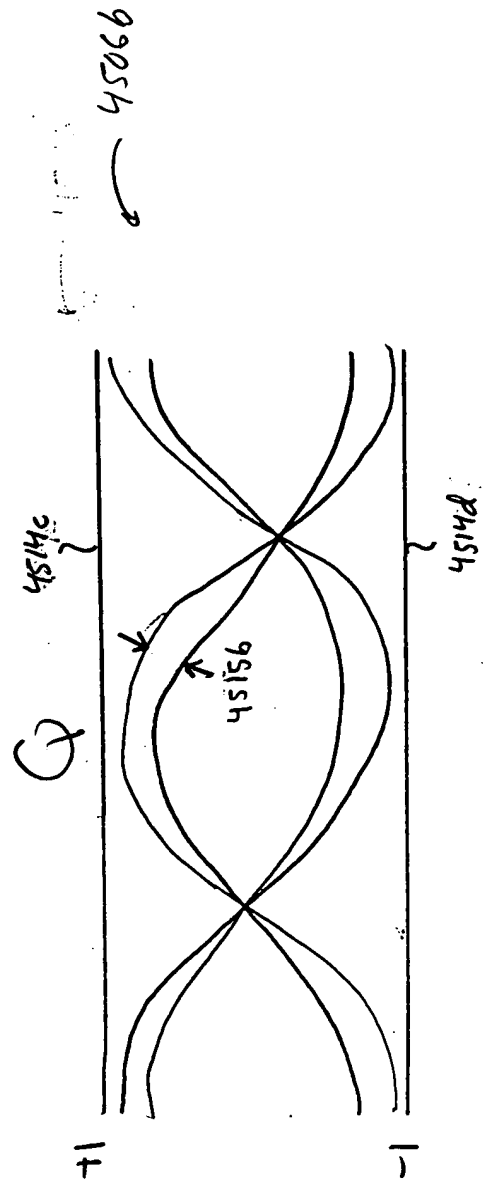
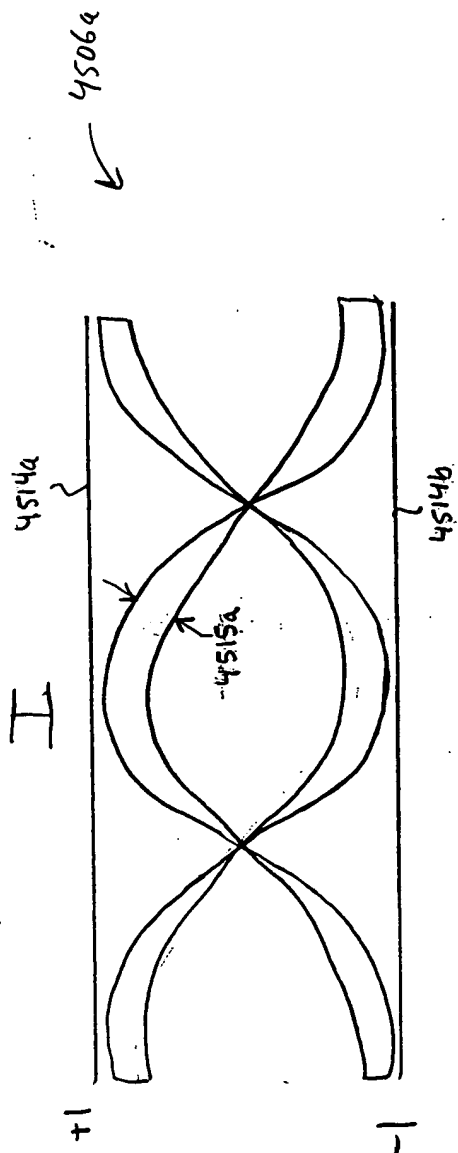


FIG. 45A: CDMA Transmitter



0052165 034400

4508

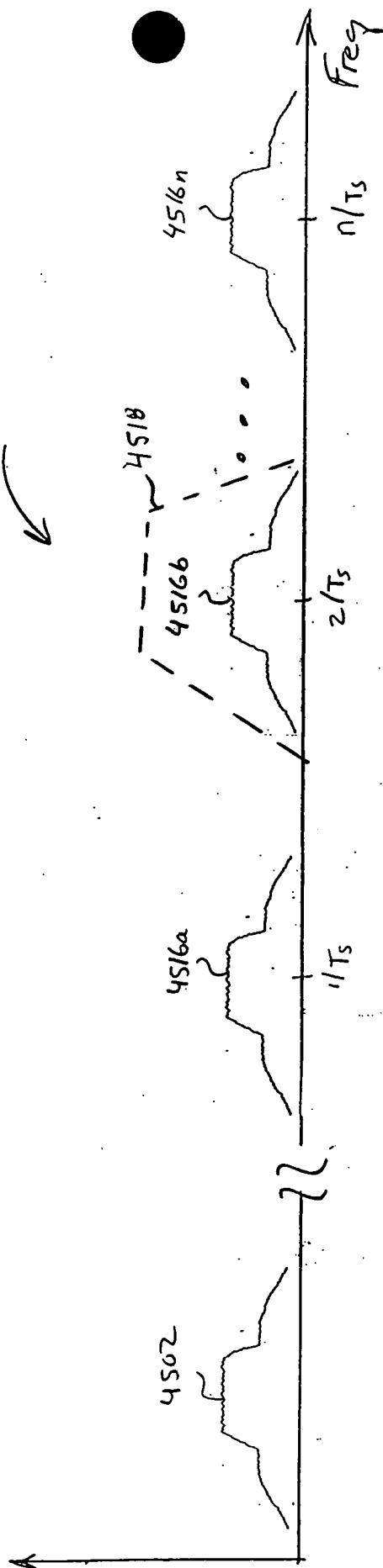


FIG. 45E

13.702 600 B-EFTS FILTER 1 SQUARE
43.001 60 B-EFTS EYE-GLASS 1 SQUARE
43.002 100 B-EFTS EYE-GLASS 1 SQUARE
43.003 100 B-EFTS EYE-GLASS 1 SQUARE
43.004 100 B-EFTS EYE-GLASS 1 SQUARE
43.005 100 B-EFTS EYE-GLASS 1 SQUARE
43.006 200 RECYCLED WHITE 1 SQUARE
43.007 200 RECYCLED WHITE 1 SQUARE
MADE IN U.S.A.



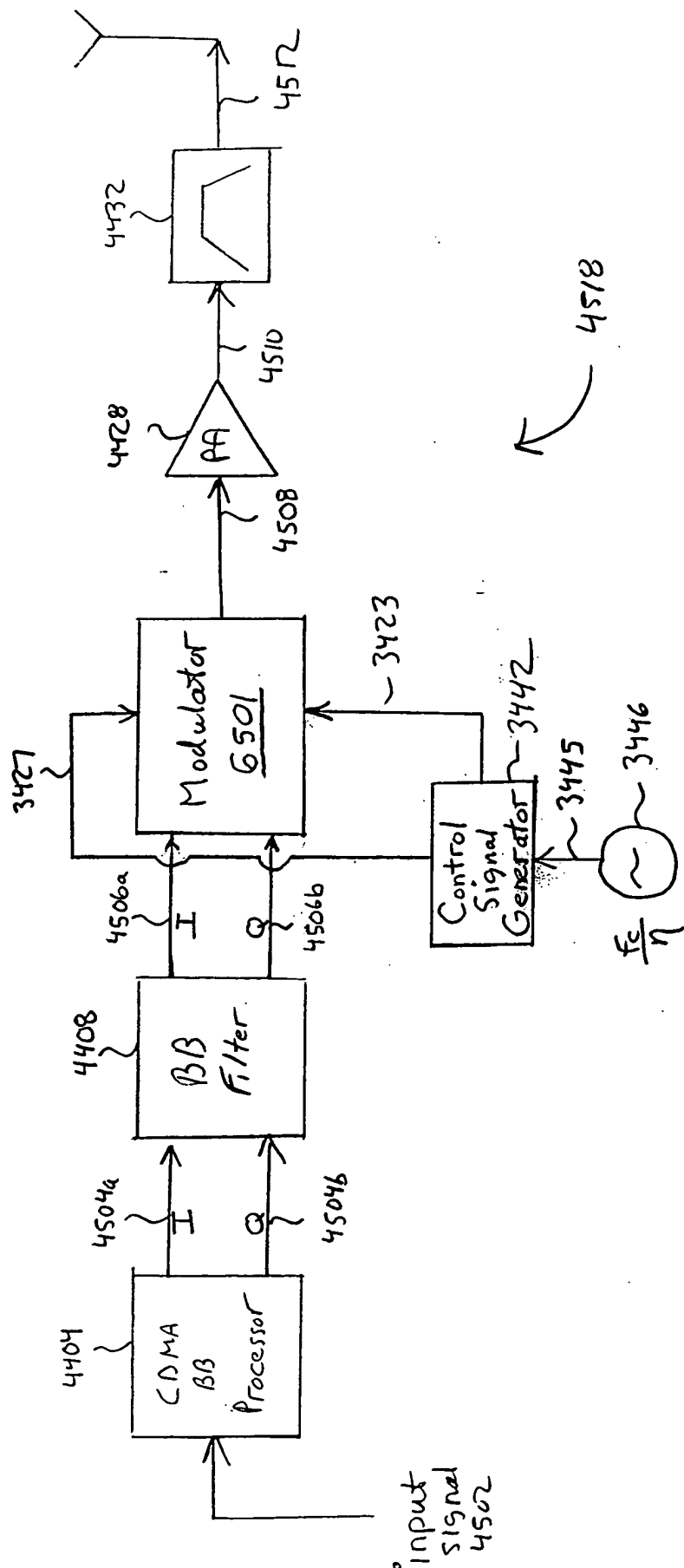


FIG: 45F CDMA Transmitter

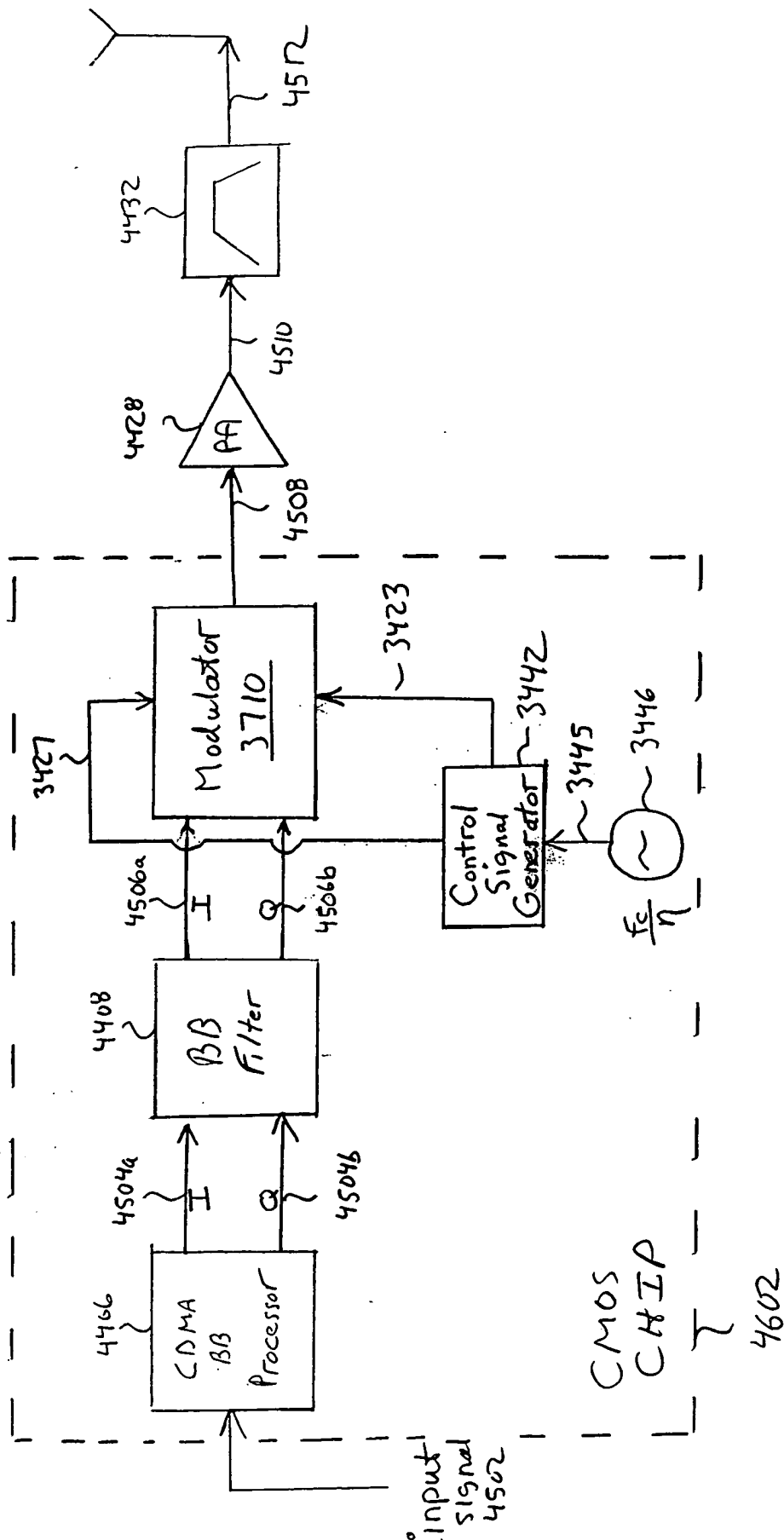


FIG. 46: CDMA CMOS CHIP

0952245 034400
00470 50732660

Base Station

4802 ~

FIG. 48

RHO	0.9970
EVM	5.51%
PHASE ERROR	1.80°
MAGNITUDE ERROR	4.53%
CARRIER INSERTION	-37.91 dB
PA POWER OUT	28.06 dBm

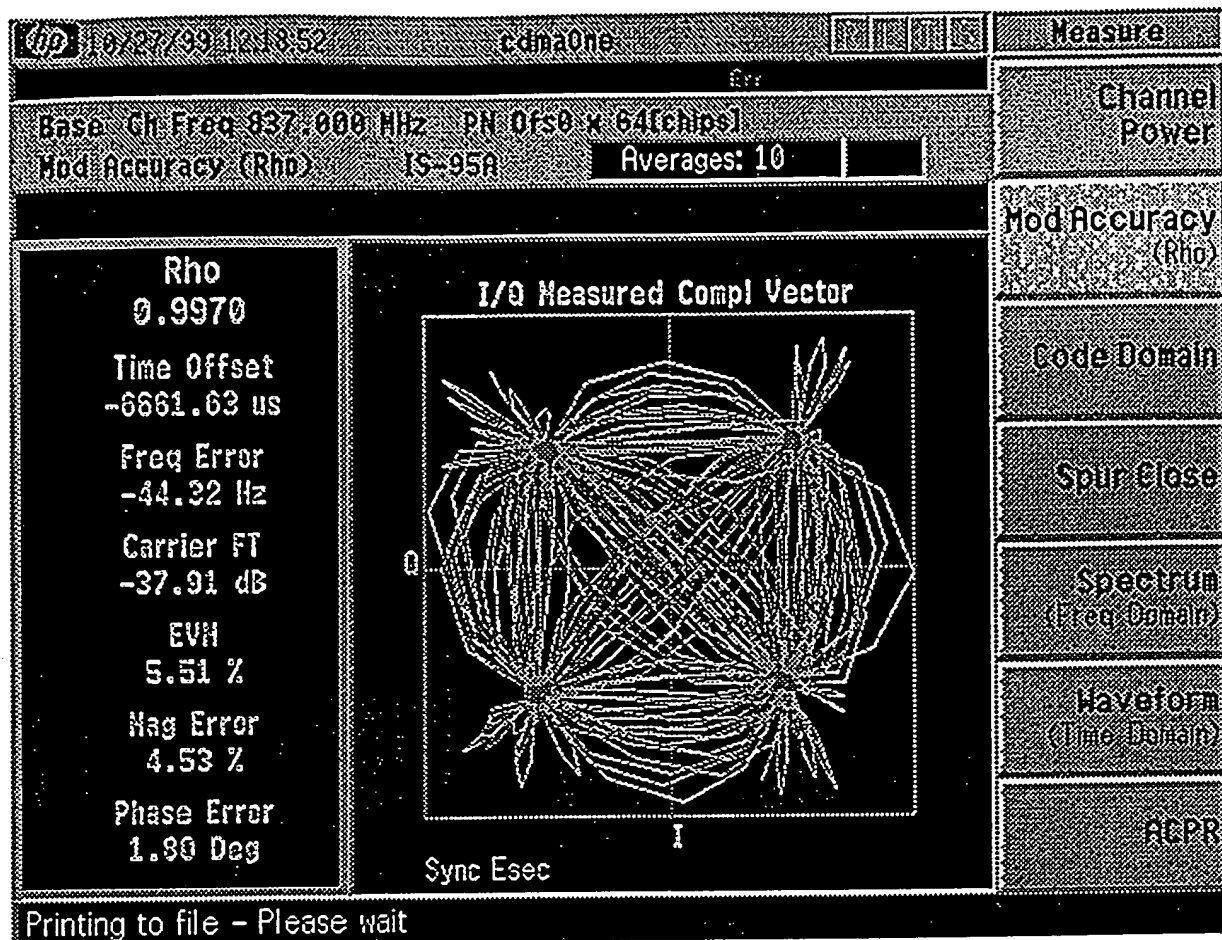
FREQUENCY (MHz) (Mobile Station)

	<i>LOW</i>	<i>MIDDLE</i>	<i>HIGH</i>
RHO	0.9892	0.9969	0.9892
EVM	10.39%	5.54%	10.39%
PHASE ERROR	4.47°	2.24°	4.08°
MAGNITUDE ERROR	6.84%	4.21%	8.27%
CARRIER INSERTION	-40.15 dB	-44.58 dB	-35.27 dB
PA POWER OUT	27.36 dBm	28.11 dBm	27.55 dBm

~4902

FIG. 49

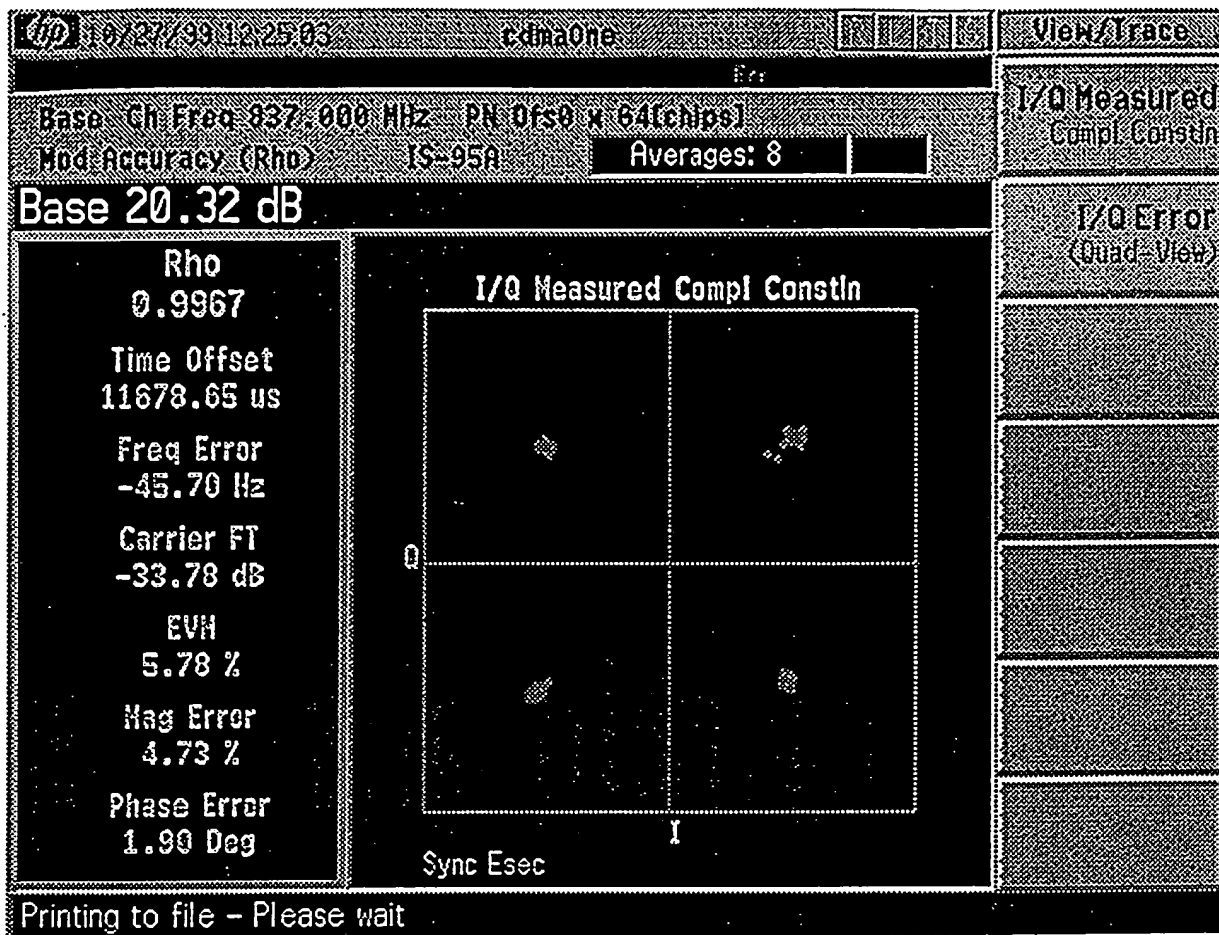
5002
↓



Base Station Constellation for Pilot Channel Test

FIG. 50

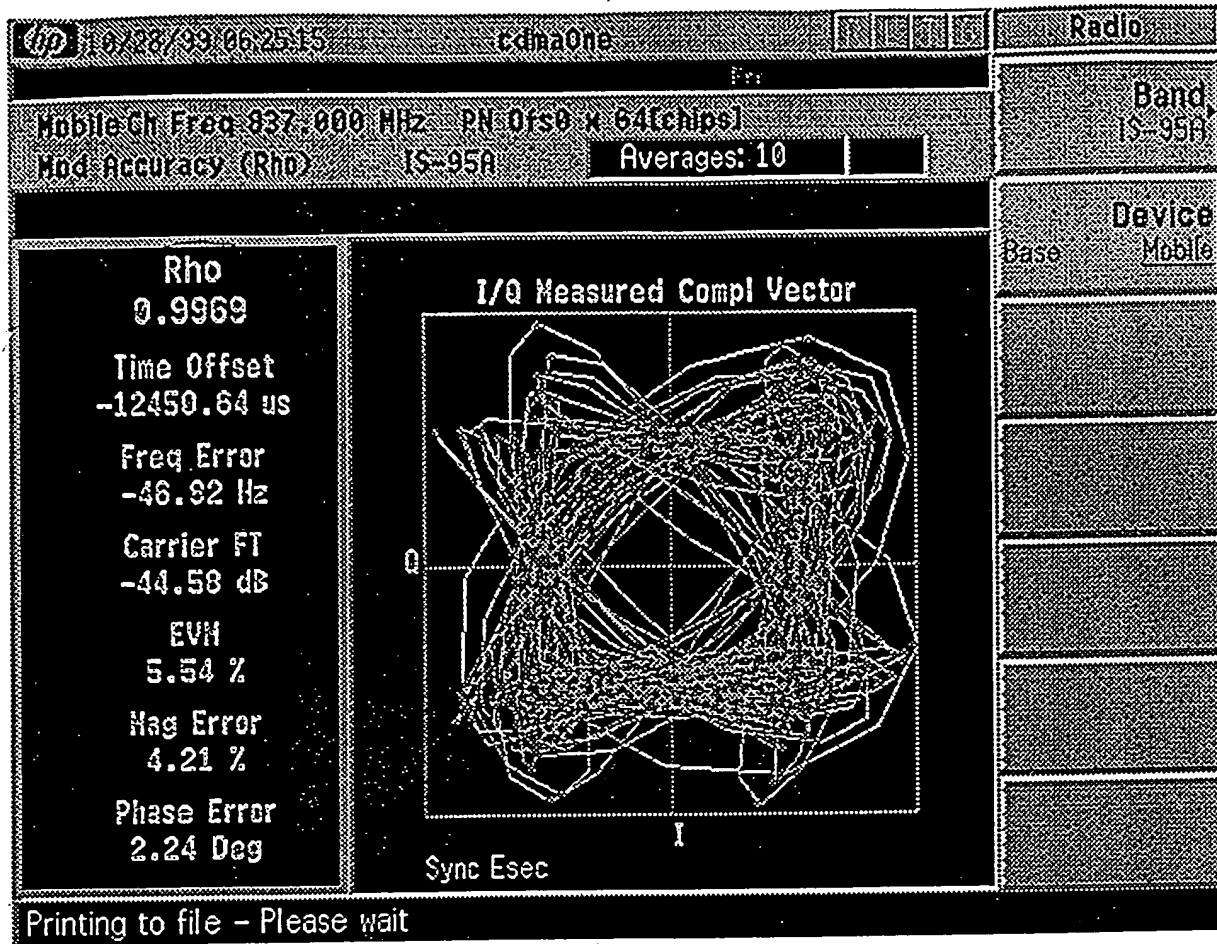
5102
↓



Base Station Sampled Constellation

FIG. 51

5262

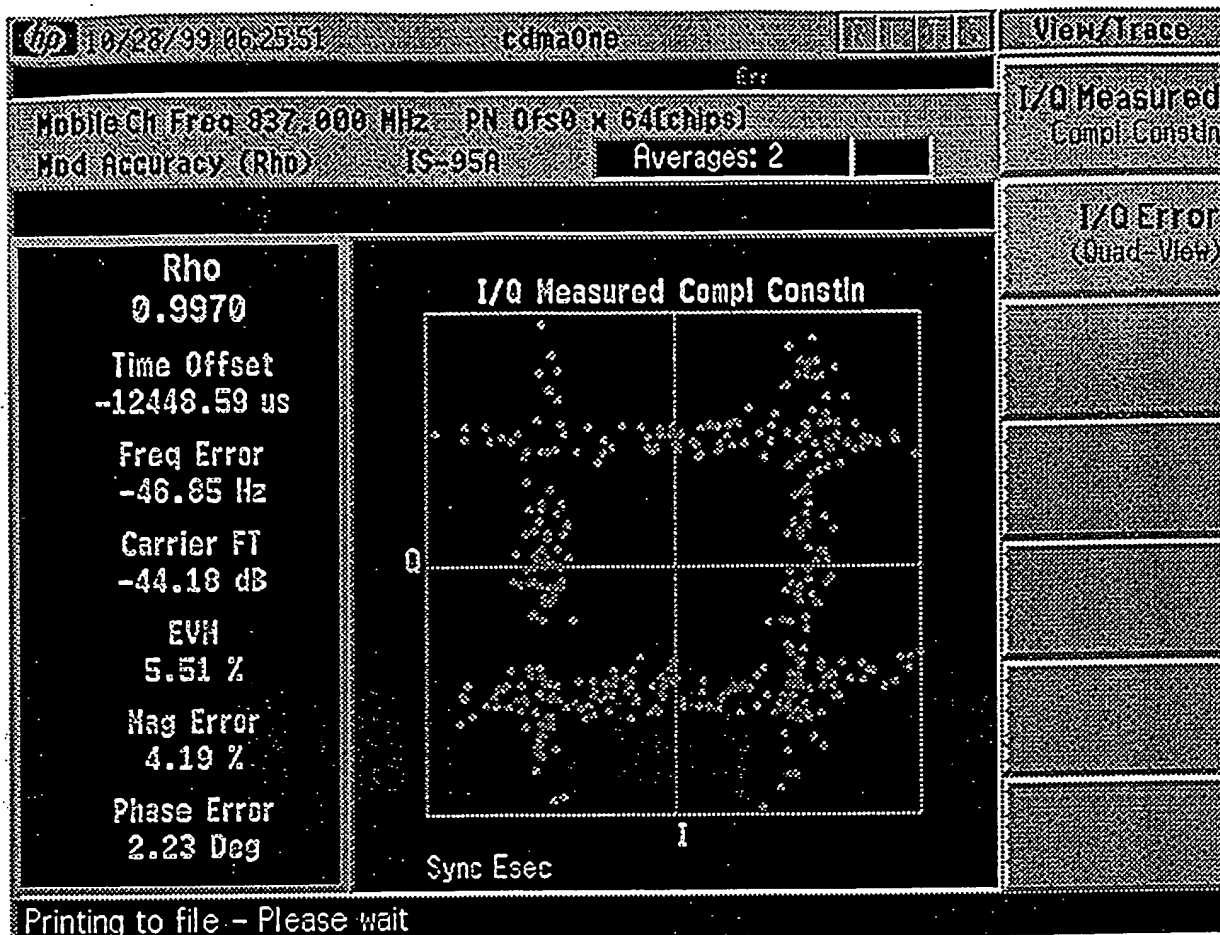


09525185.034100

Mobile Station Constellation for Access Channel Test

FIG. 52

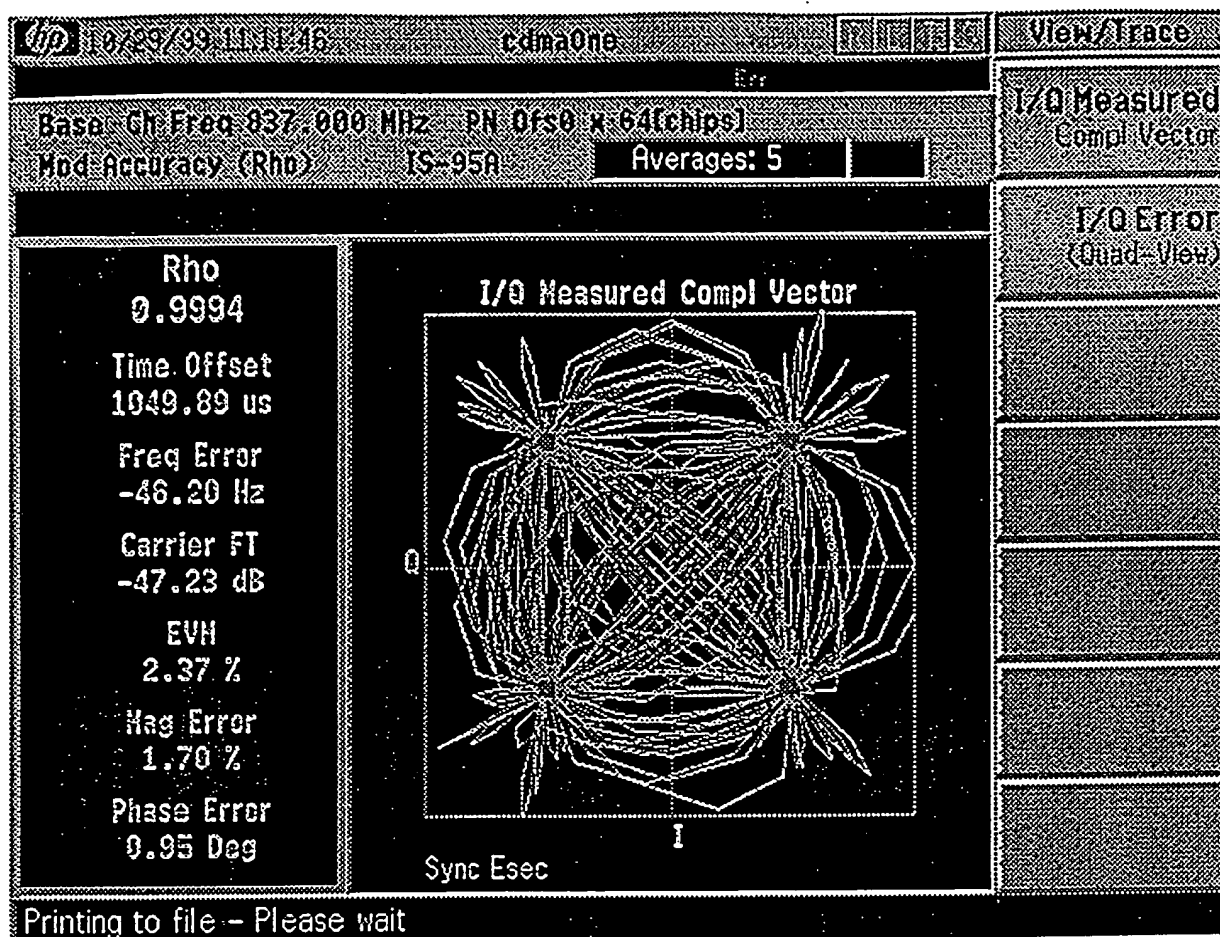
5302
↓



Mobile Station Sampled Constellation

FIG. 53

5402
✓

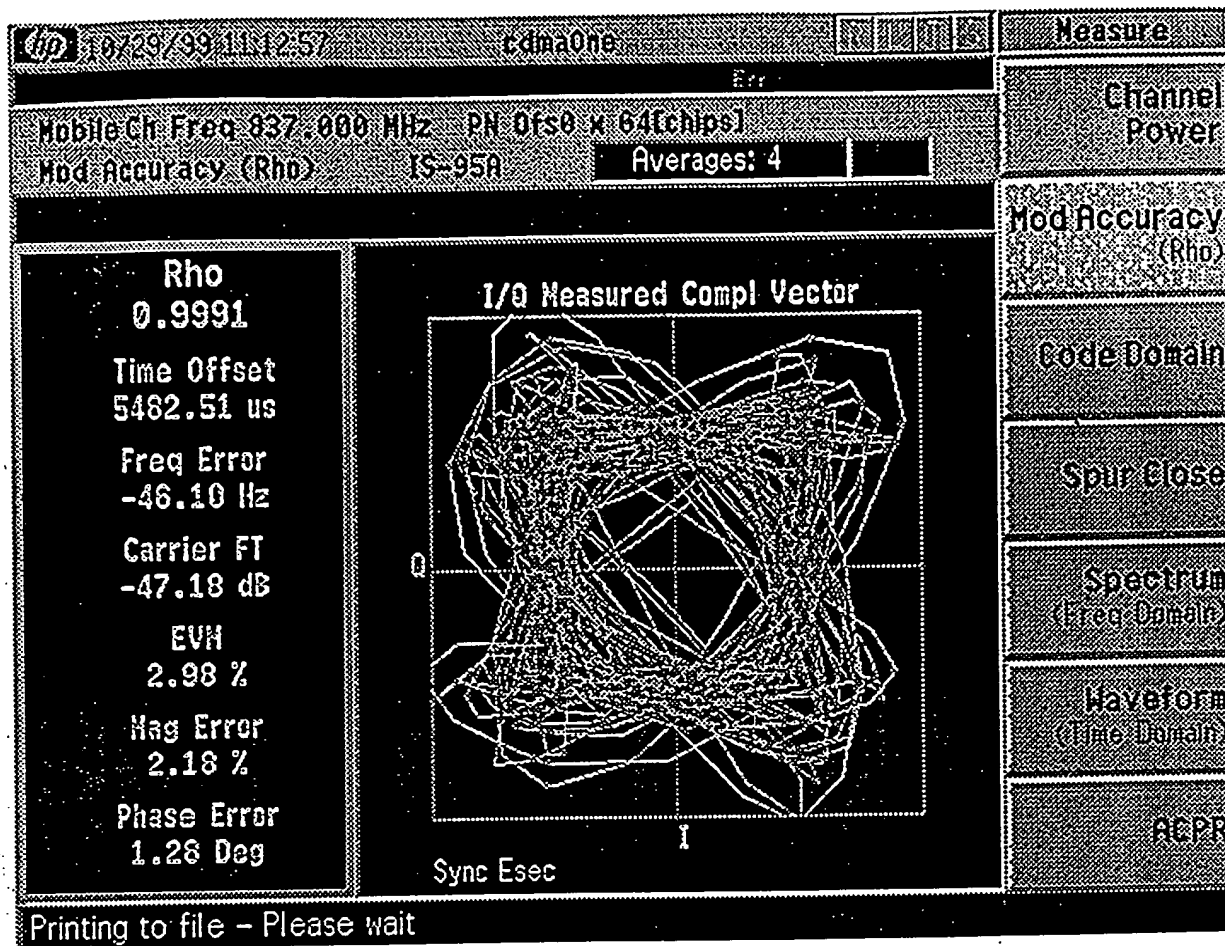


Base Station Constellation using only H/P Test Equipment

FIG. 54

09525185 034100

5502
↓

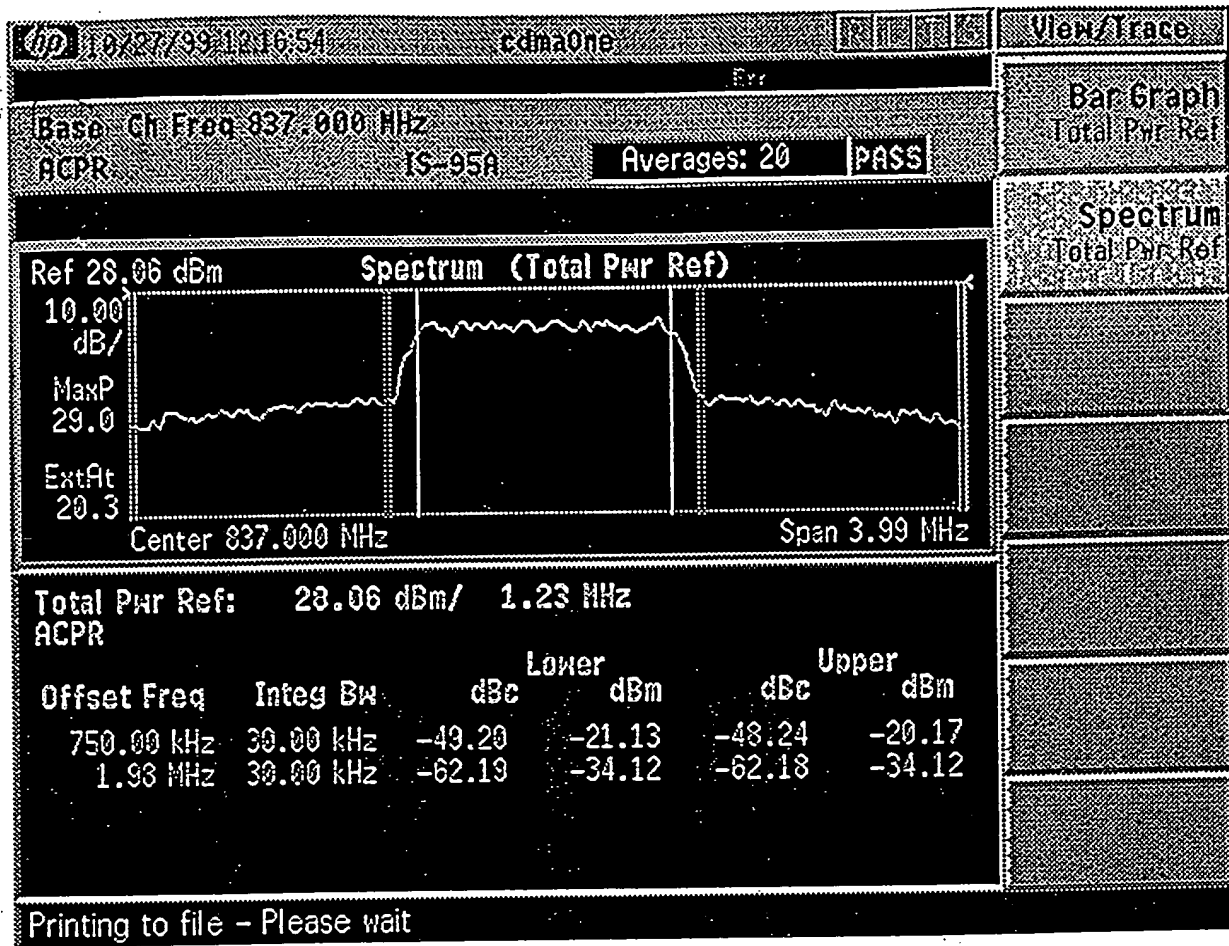


09525185 034400

Mobile Constellation using only H/P Test Equipment

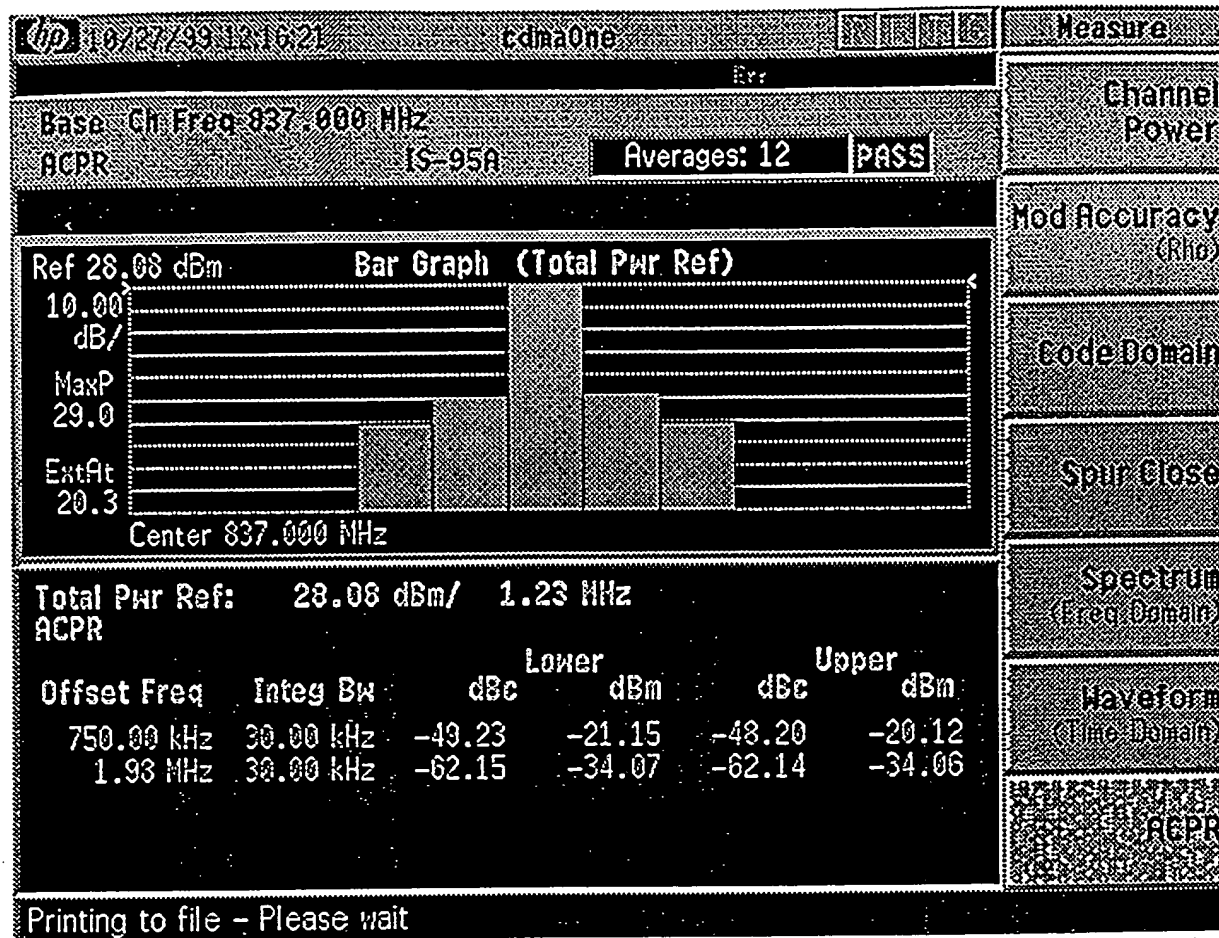
FIG. 55

5602
↓



00525105 034100

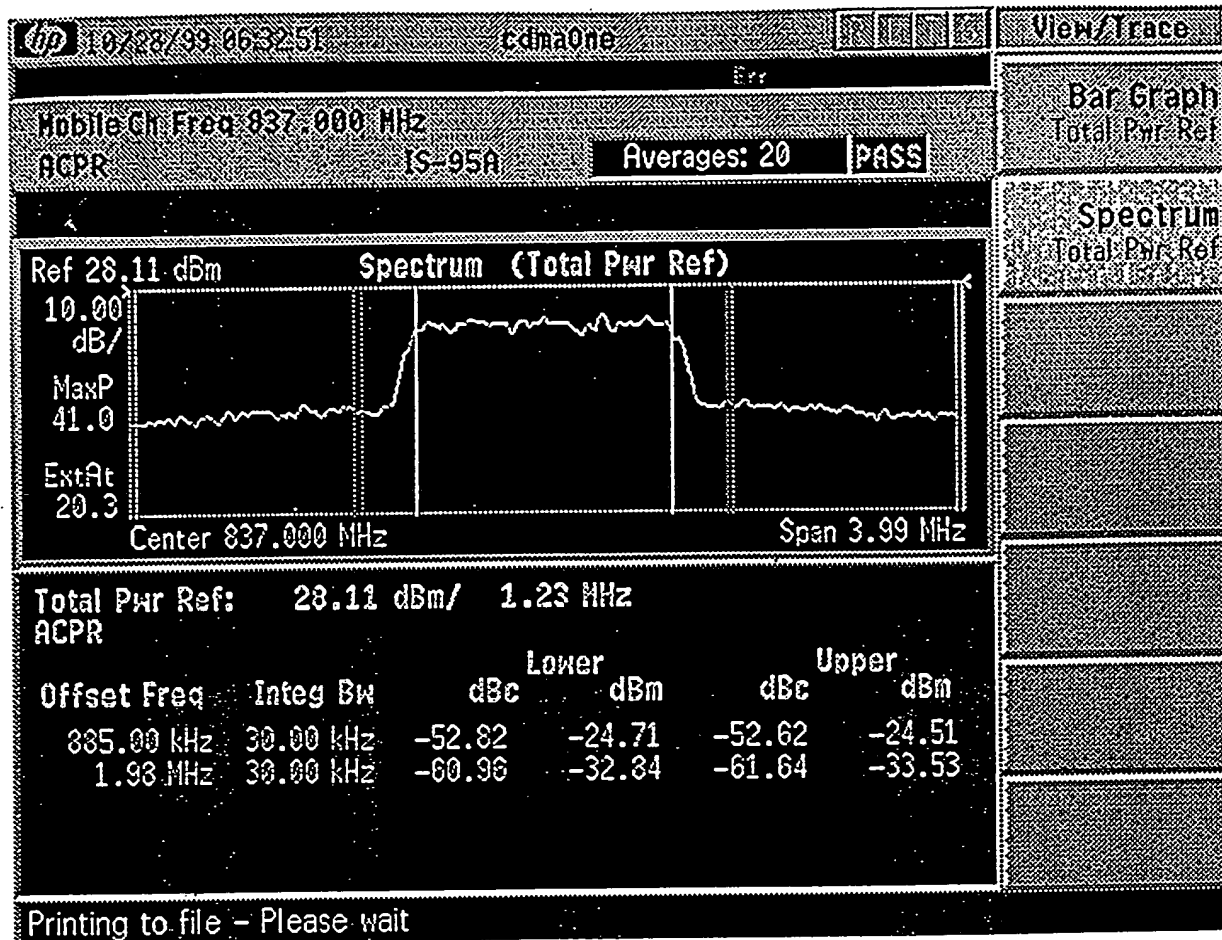
FIG. 56



Base Station Spectral Response with Mask

FIG. 57

5802



00525185-034100

FIG. 5B

5902

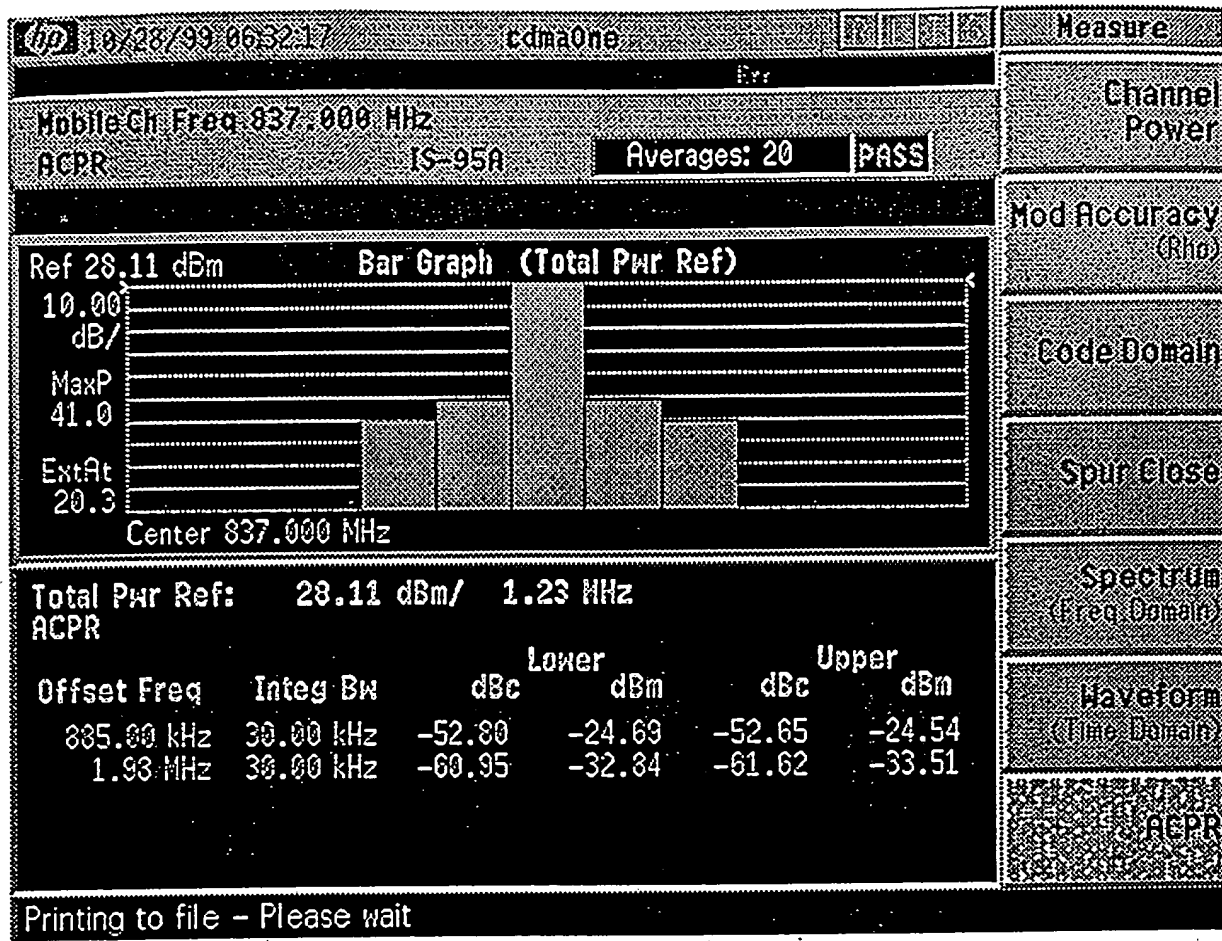
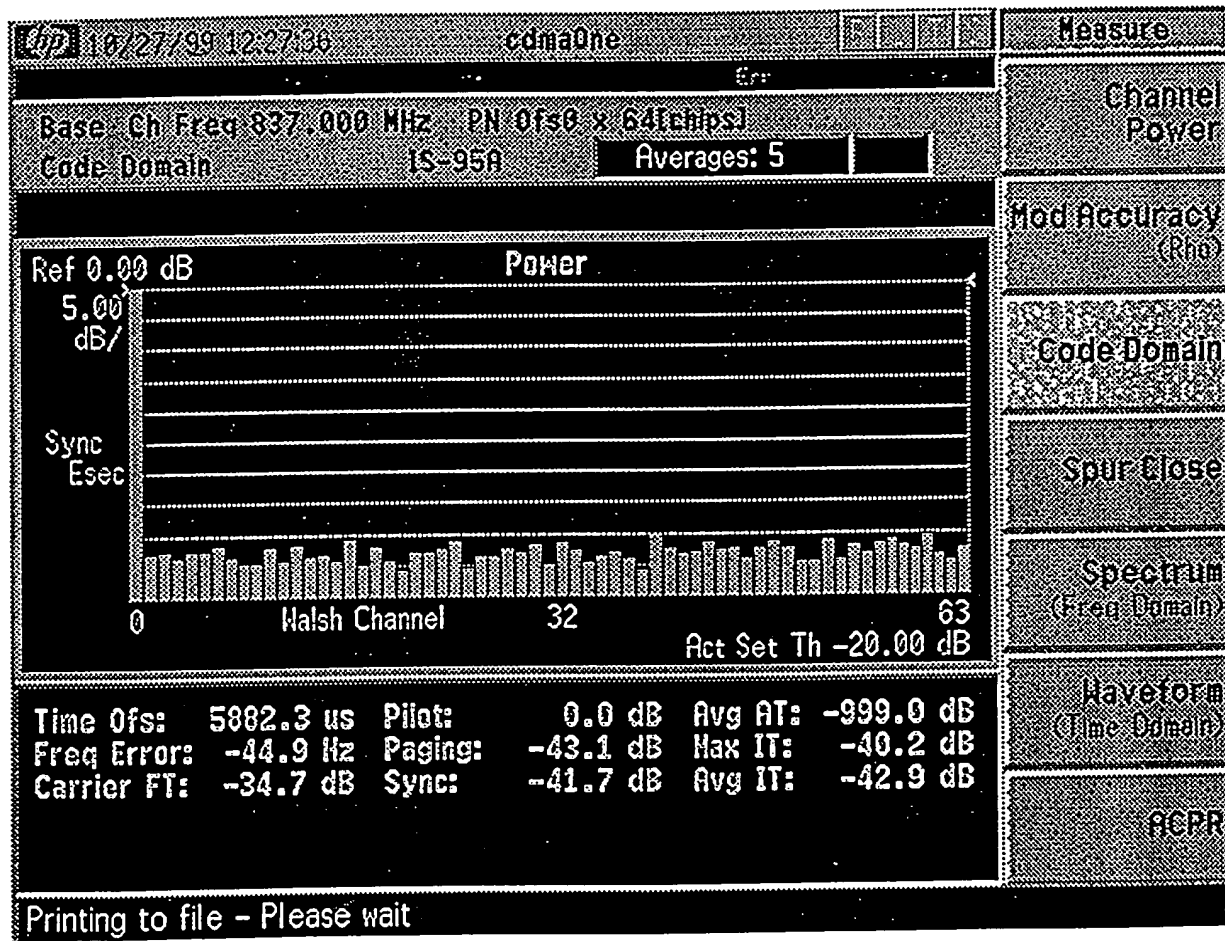


Figure 3.2-2 Mobile Station Spectral Response with Mask

FIG. 59

6002
↓

00525195 034400



CDMA Crosstalk

FIG. 60A

Sequence for IQ Input Level Variance

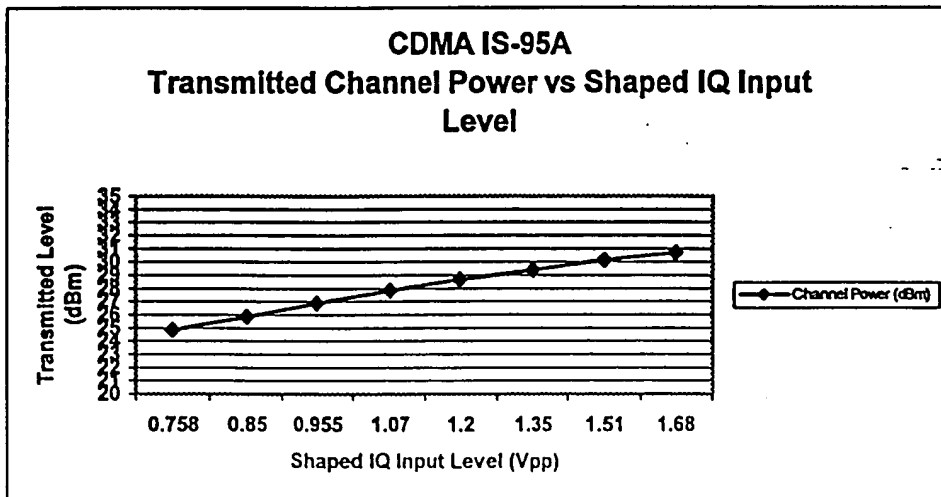
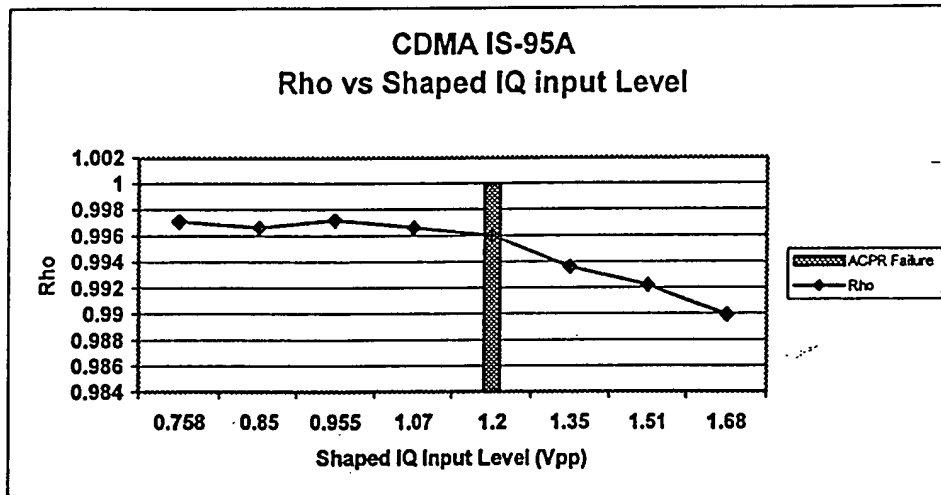


FIG. 60D

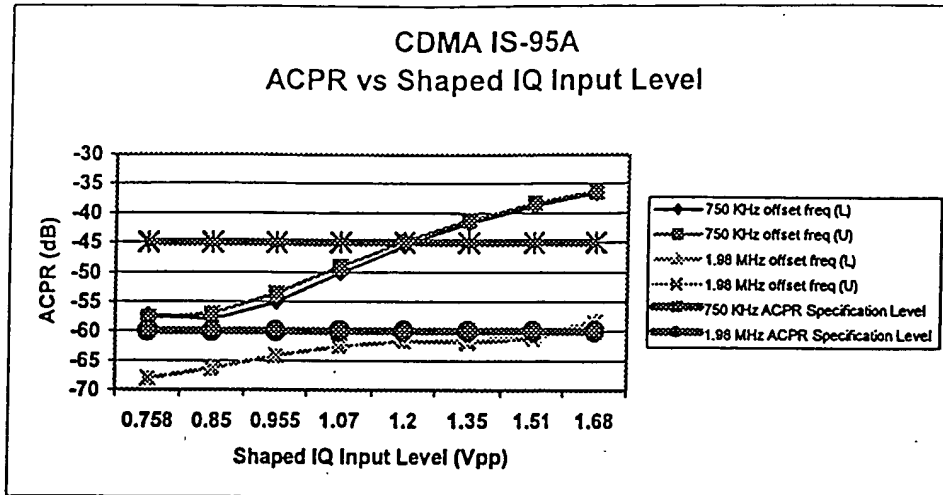


FIG. 60E

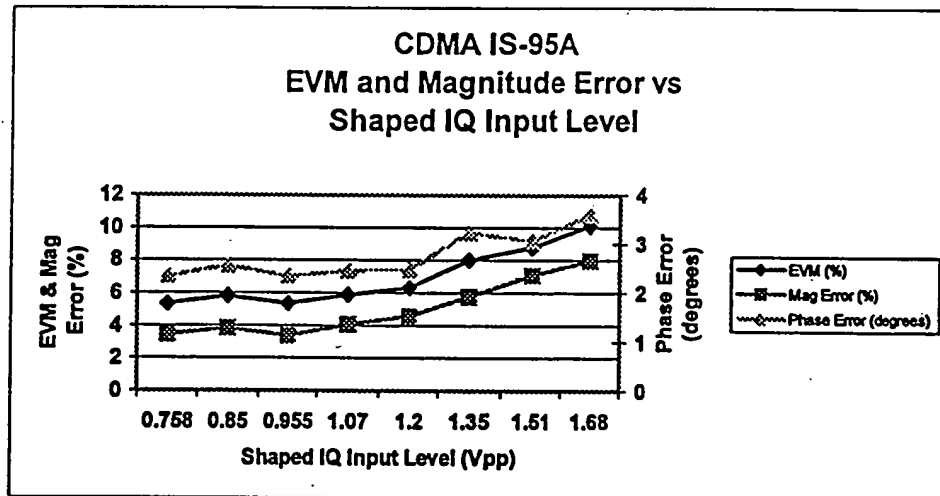
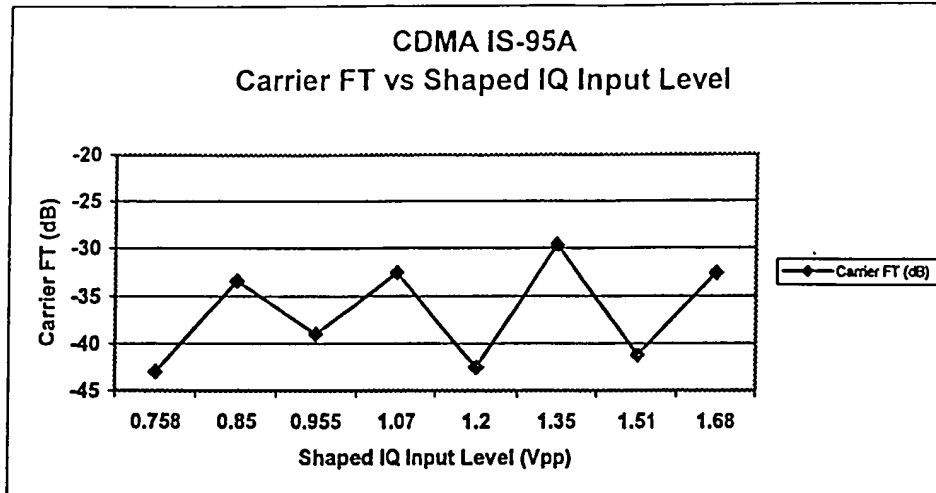


FIG. 60F



Sequence for LO Variance

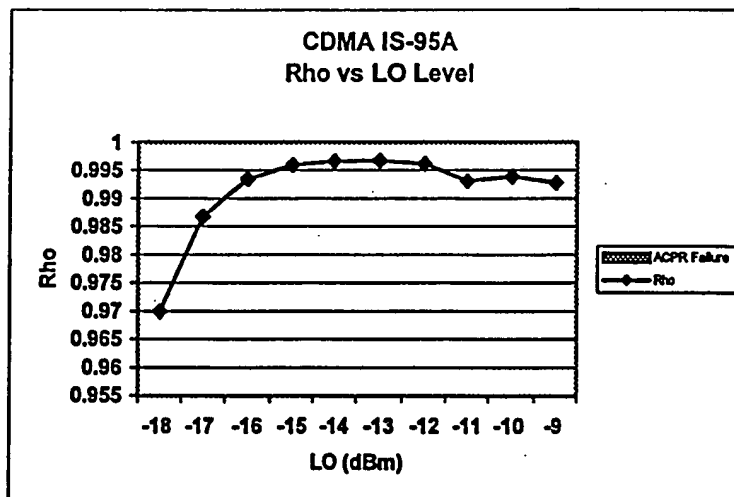


FIG. 60G

FIG. 604

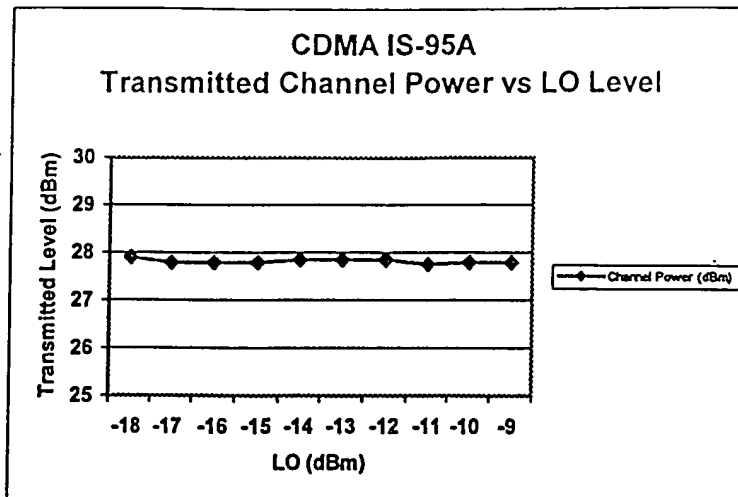


FIG. 601

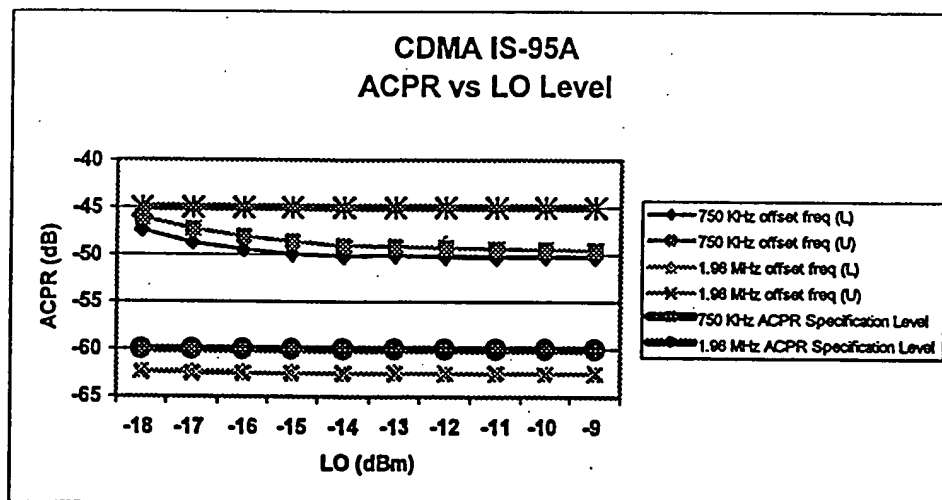


FIG. 60J

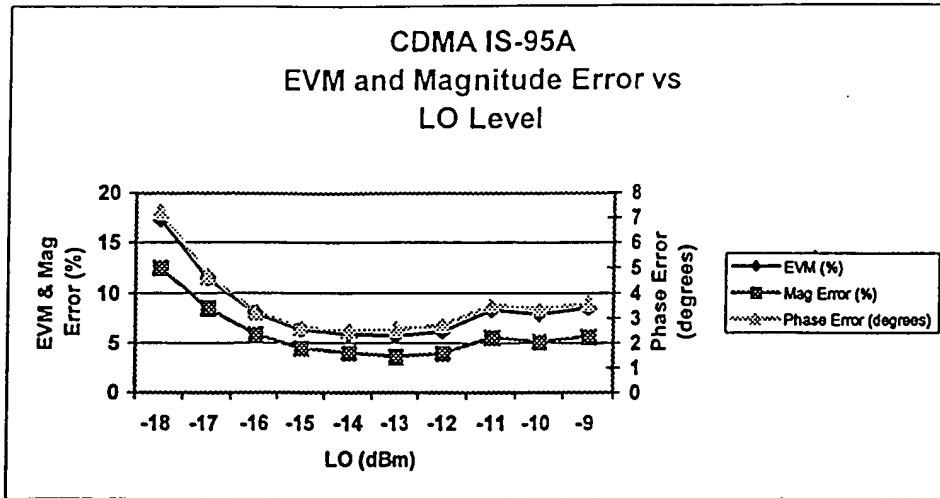


FIG. 60K

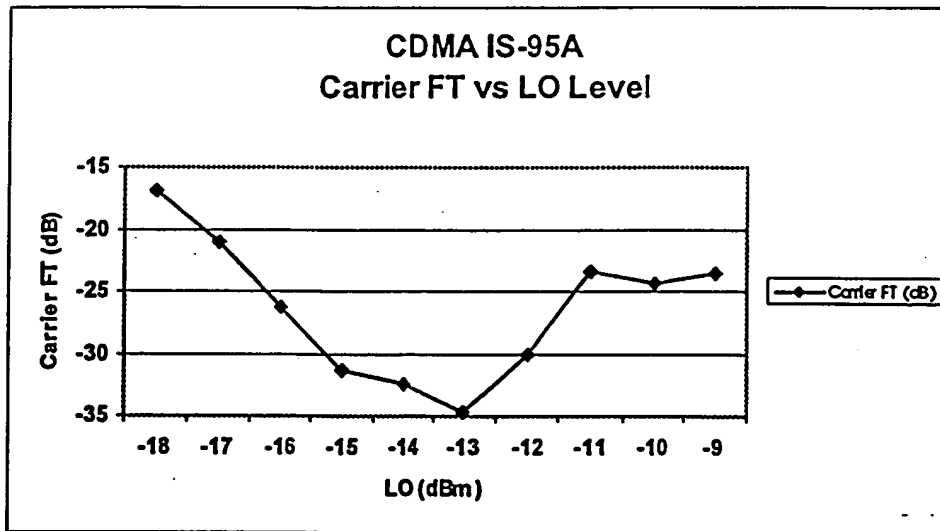


FIG. 60L

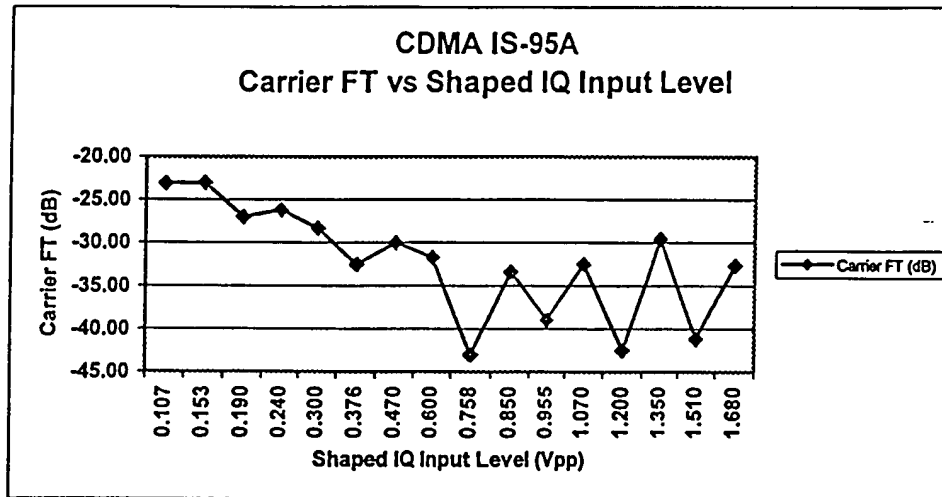


FIG. 60M

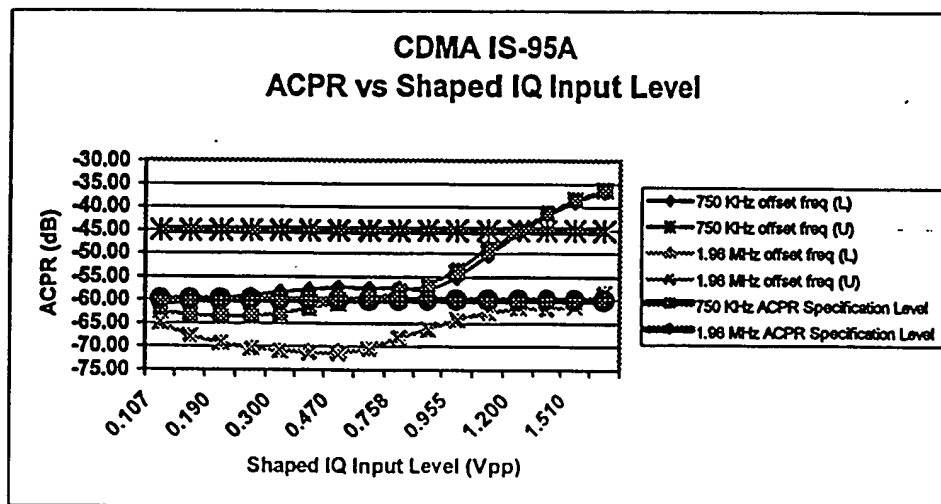


FIG. 60N

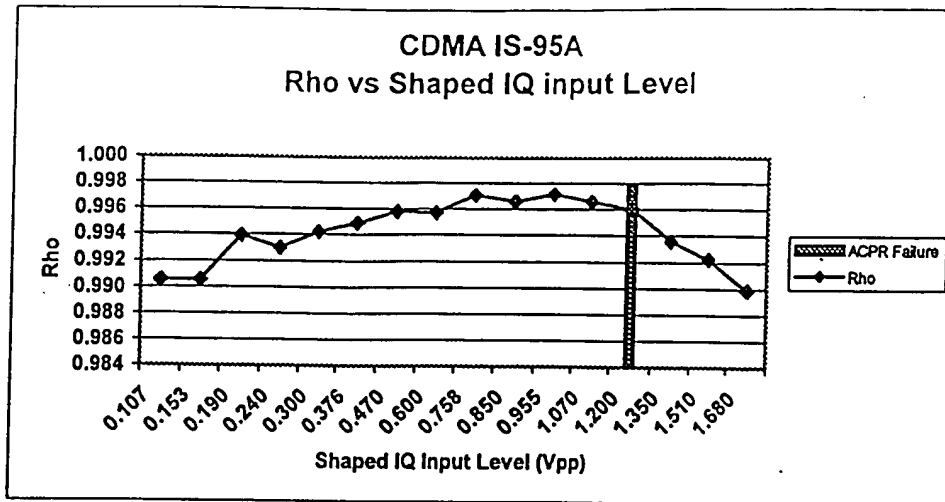
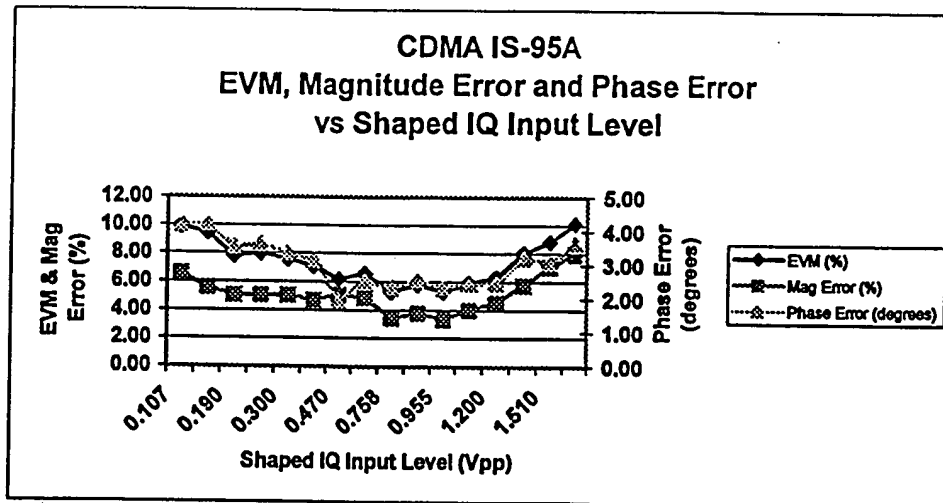


FIG. 60O



Sequence for IQ Input Level Variance

FIG. 60P

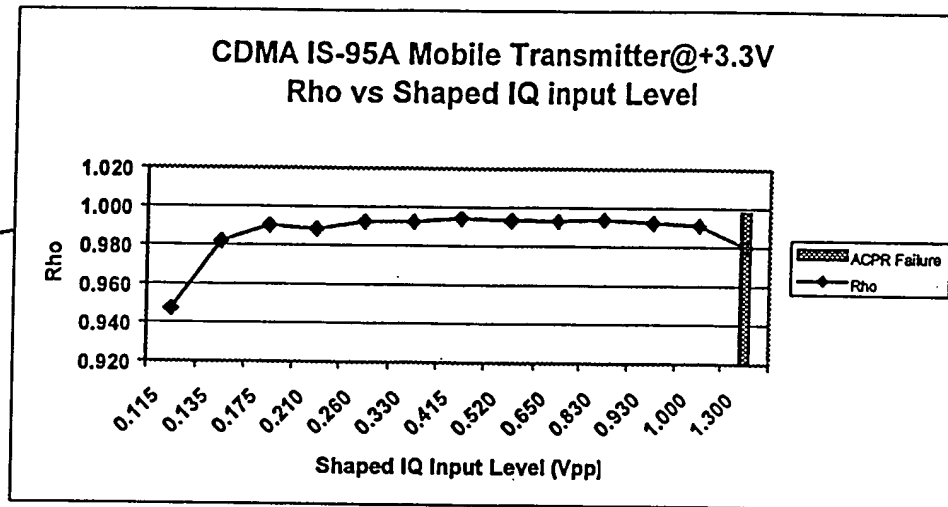


FIG. 60Q

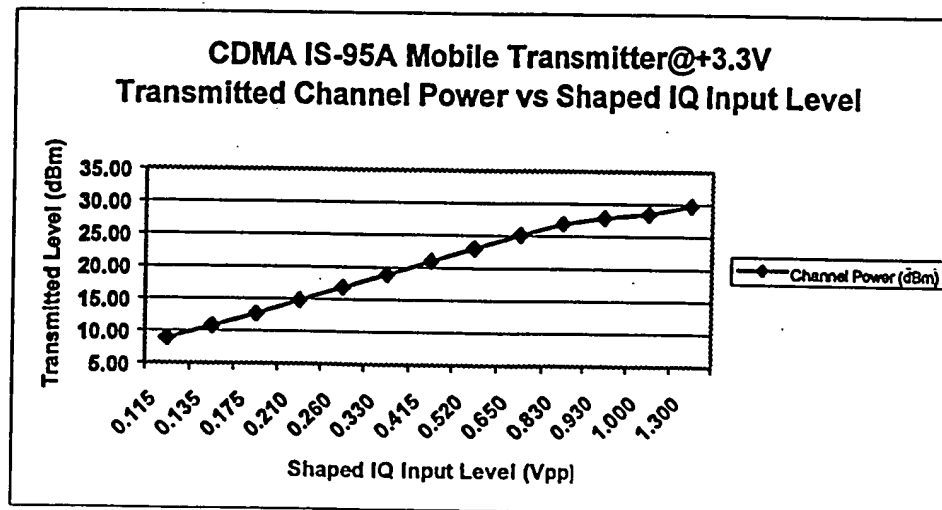


FIG. 60R

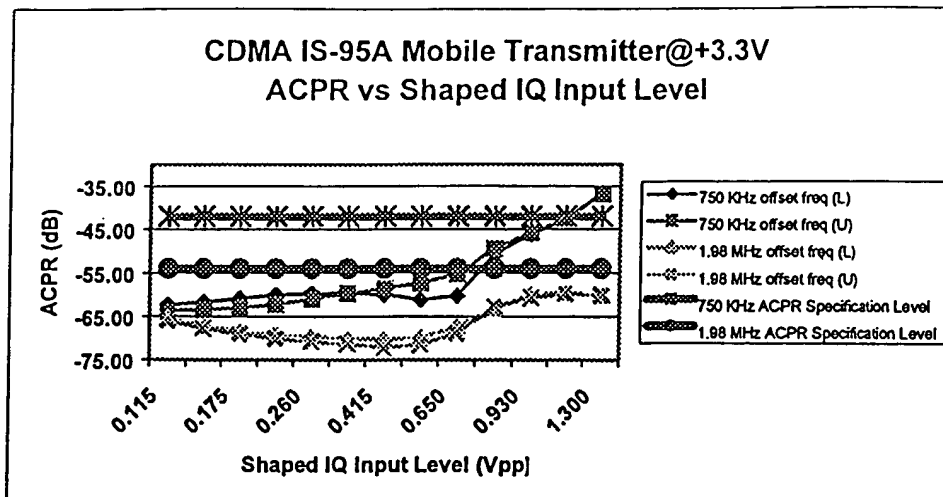


FIG. 60S

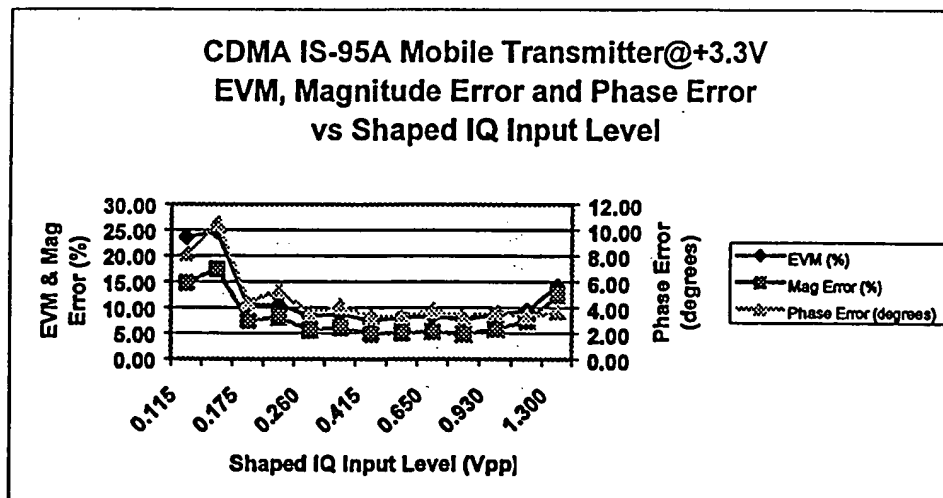


FIG. 60T

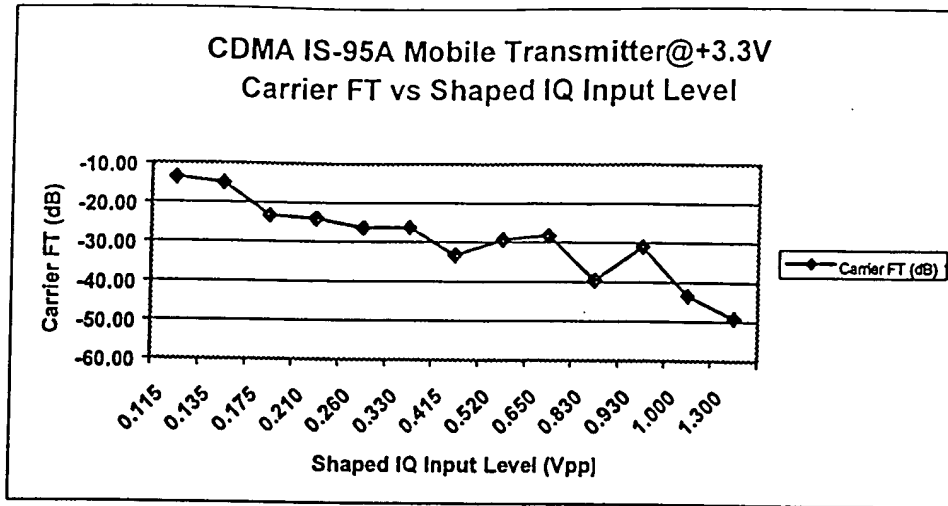


Figure 3.6-5

Sequence for LO Variance

FIG. 60U

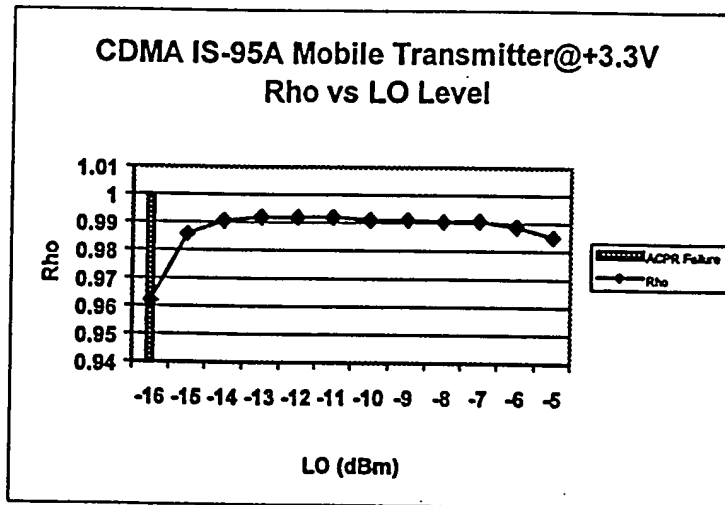


Figure 3.6-6

FIG. 60V

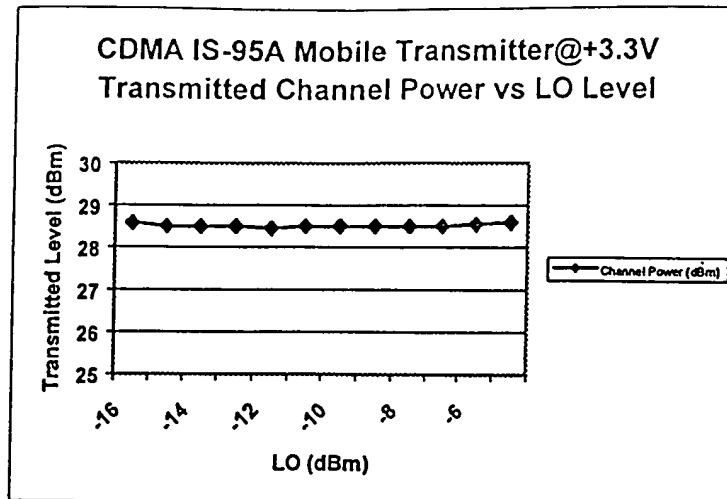


FIG. 60W

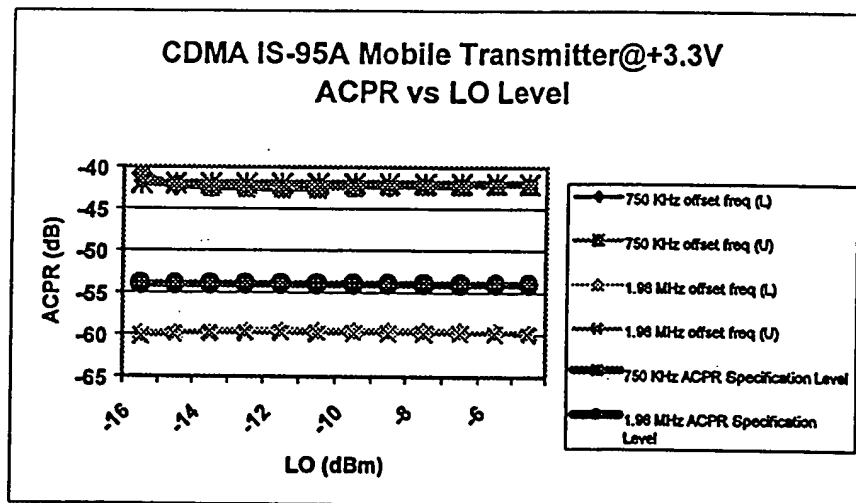
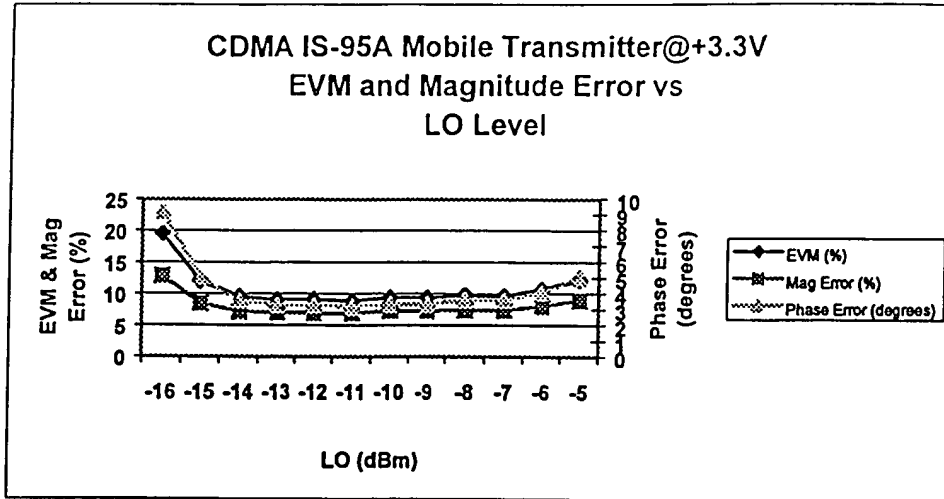
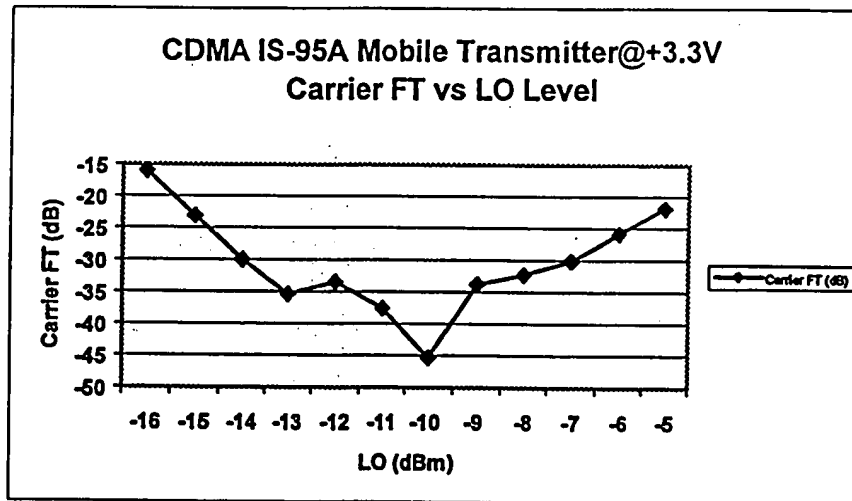


FIG. 60X



CDMA IS-95A Mobile Transmitter@+3.3V

FIG. 60Y



09525405 "031400

<i>Quantity</i>	<i>Description</i>	<i>Voltage</i>	<i>Total Current</i>	<i>Power</i>
2	D2D Cores	3.3	4mA	13.2mW
2	Baseband Interface Circuits with/BW Limit	3.3	6mA	21.8mW
1	Clock Circuit	3.3	5mA	20.0mW
			<i>Sub Total</i>	54.0mW

FIG. 602

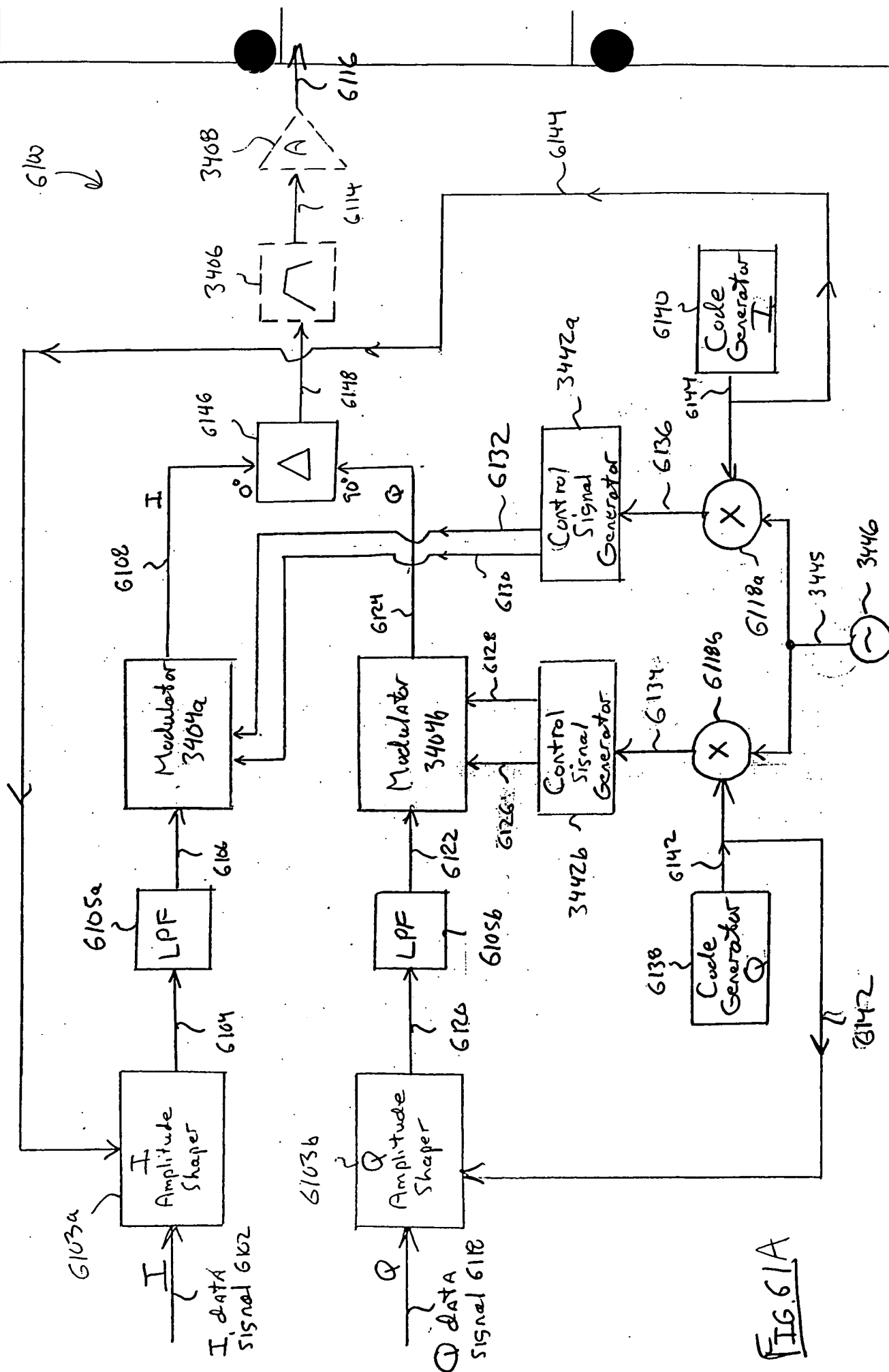


FIG. 61A

$\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ 0 & 1 \end{pmatrix}$

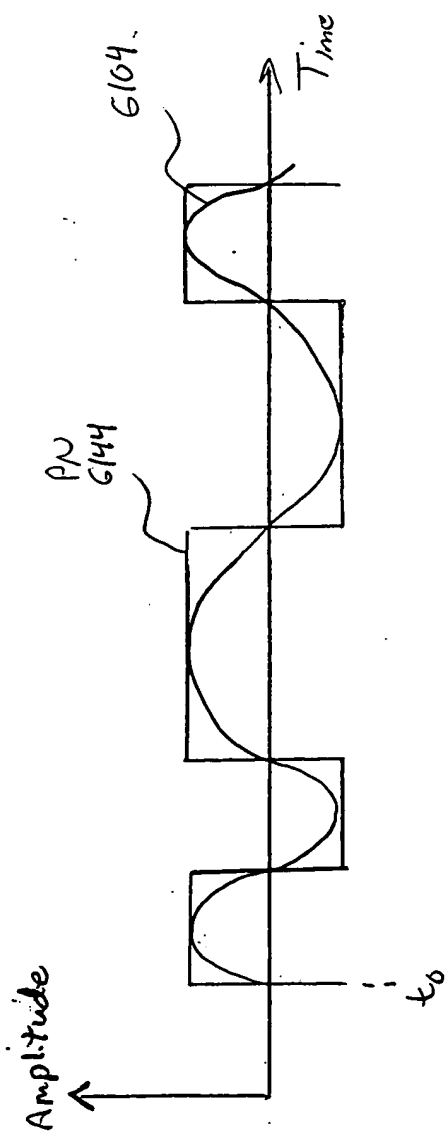


FIG. 61B

15-782	600 SHEETS	FILLER	5 SQUARE
42-381	60 SHEETS	EYE-EASE	5 SQUARE
42-382	100 SHEETS	EYE-EASE	5 SQUARE
42-383	200 SHEETS	EYE-EASE	5 SQUARE
42-384	100 RECYCLED	WHITE	5 SQUARE
42-385	200 RECYCLED	WHITE	5 SQUARE

Made in U.S.A.

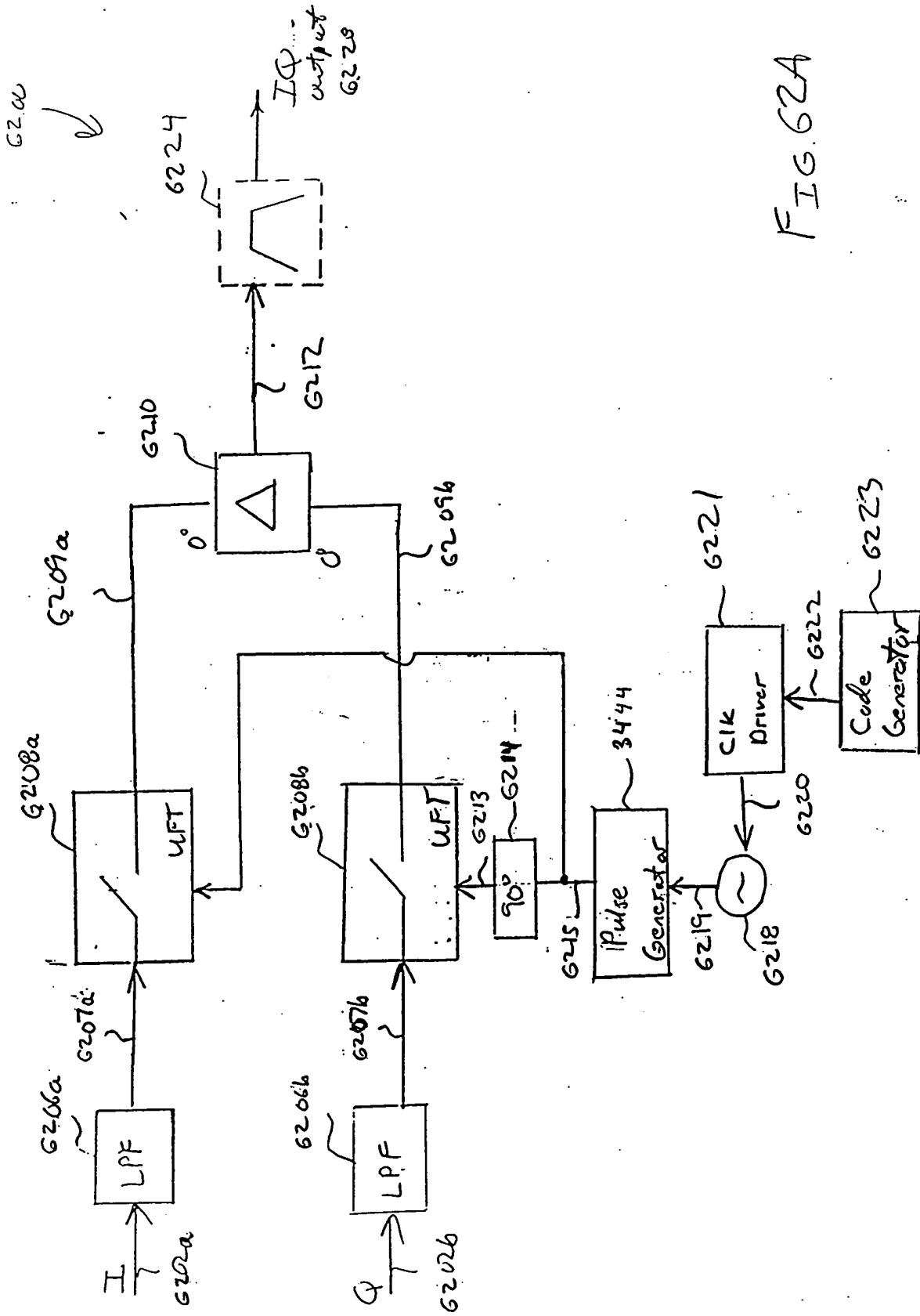


FIG. 62A

6202a
 6202b
 6206a
 6206b
 6207a
 6207b
 6208a
 6208b
 6210
 6212
 6213
 6215
 6218
 6219
 6220
 6221
 6222
 6223
 6224
 6220

→ 63026

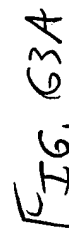
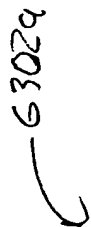
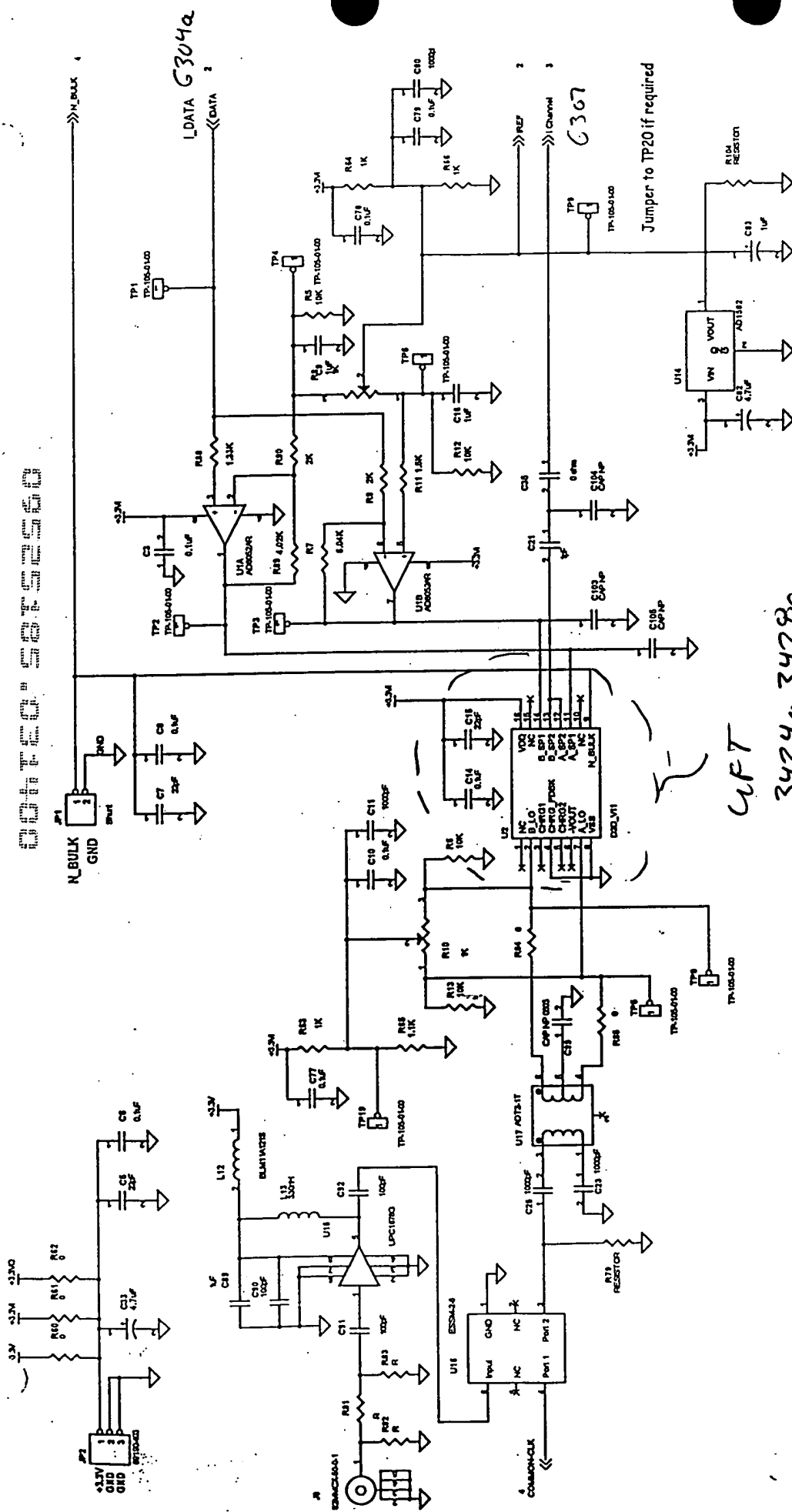


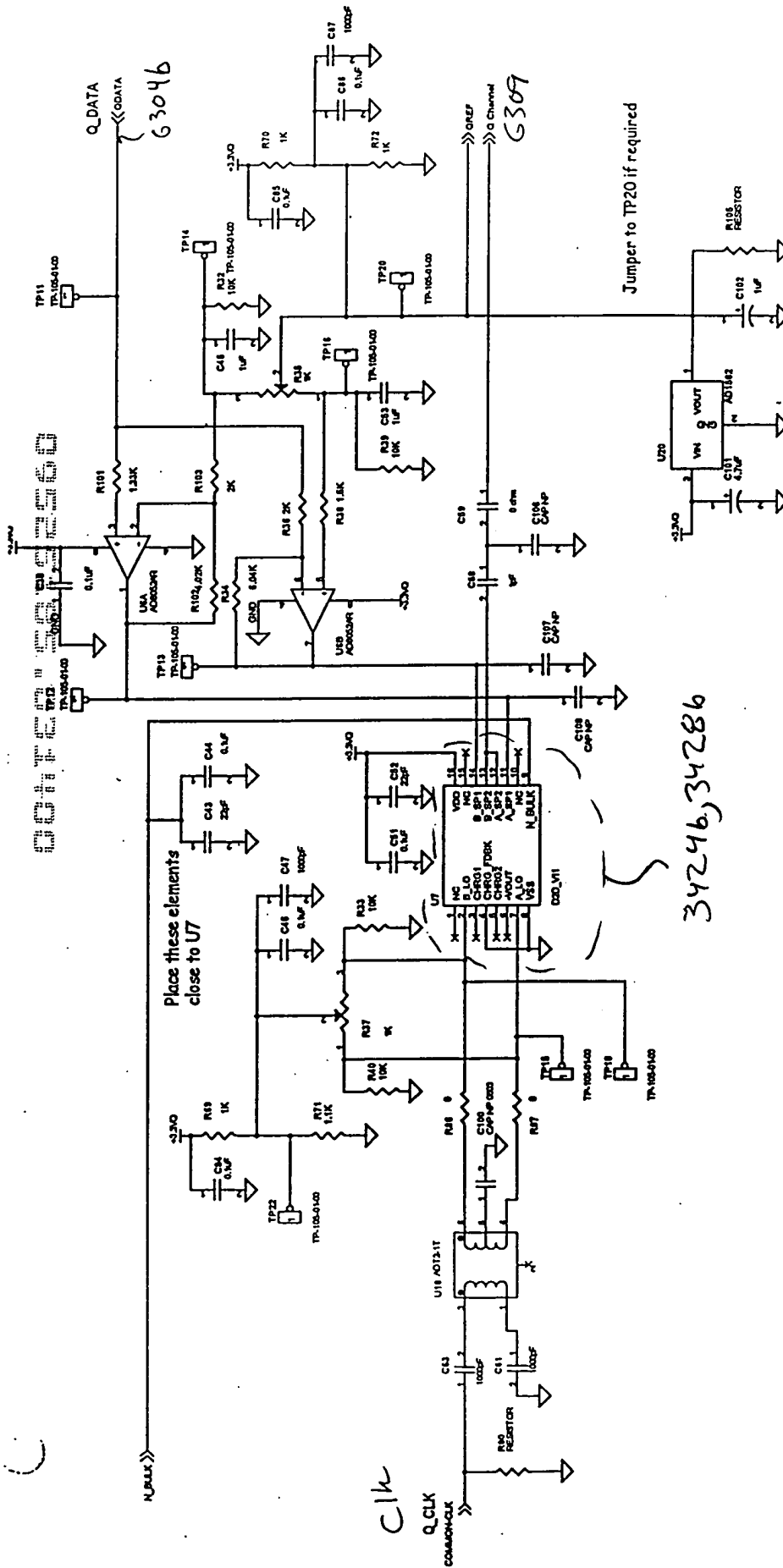
FIG. 63A



K I channel
6306

WFT
3424a, 3428a

FIG. 63B



Q Channel 6308

Fig. 63C

004717E0"50752503

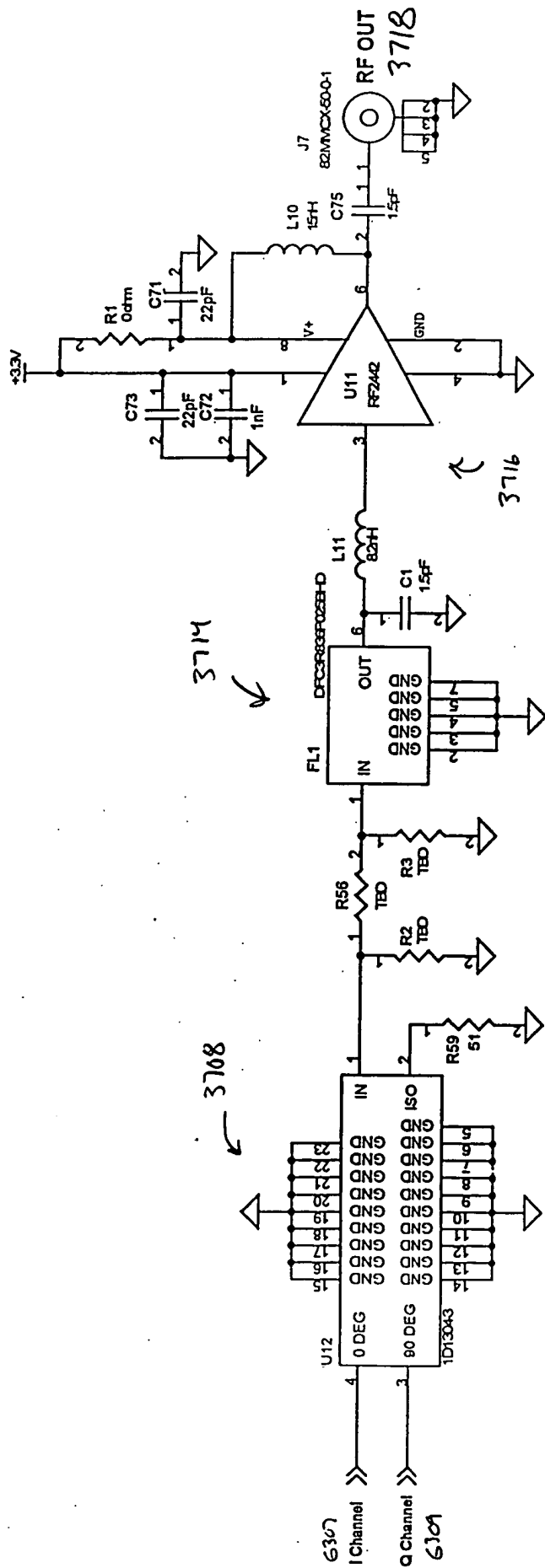
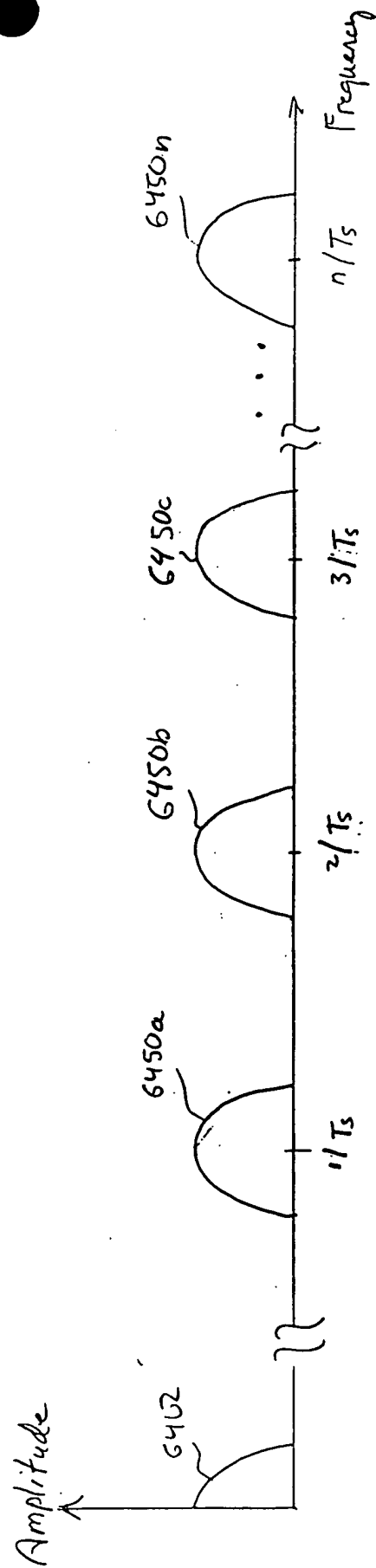


FIG. 630

Combiner
6310



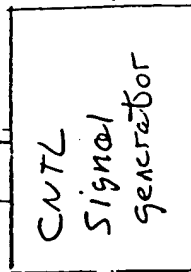


FIG. 64D

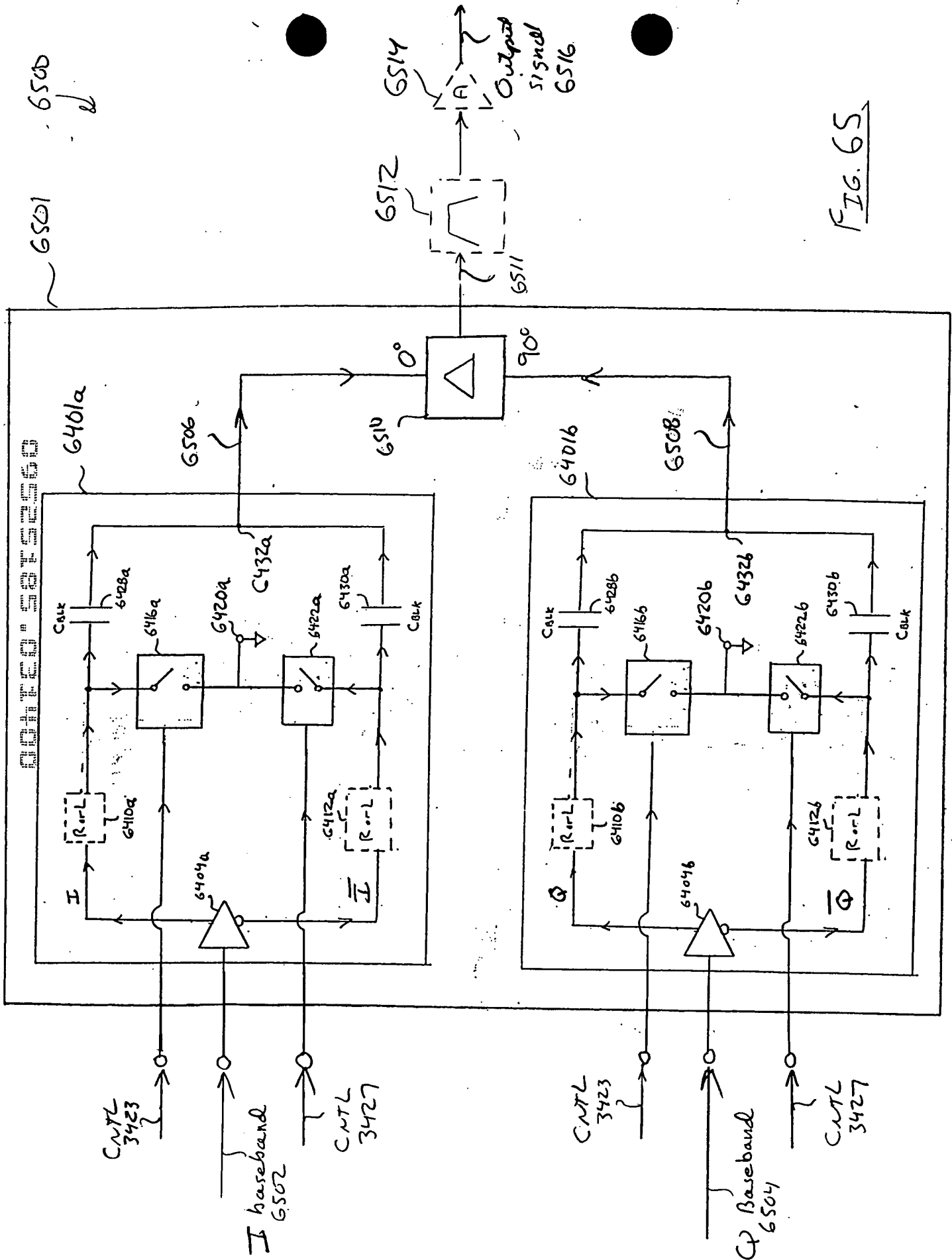


FIG. 65

6501
6500

CTL 3423
baseband 6502
CTL 3427

CTL 3423
CP Baseband 6504
CTL 3427

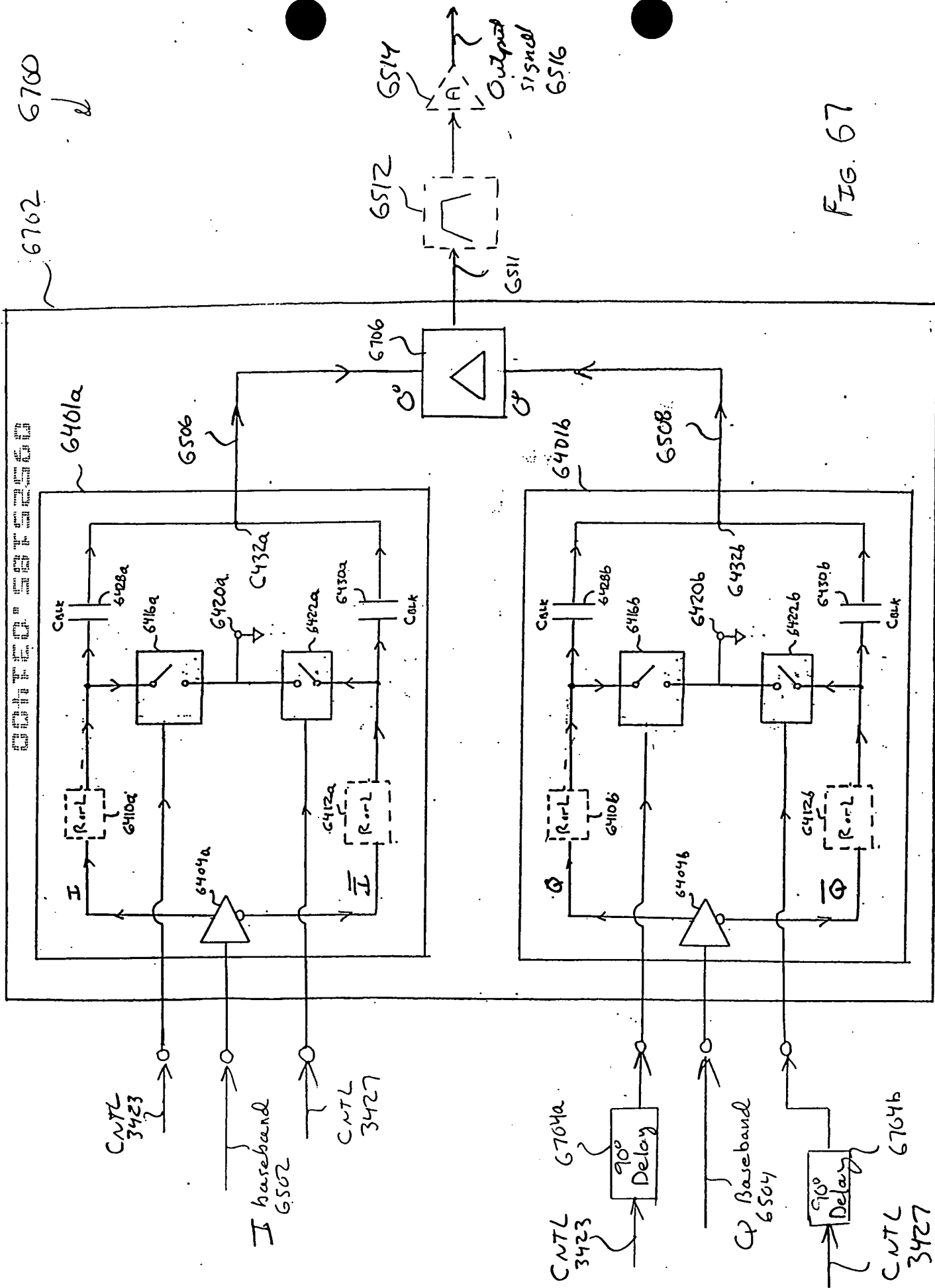


FIG. 67

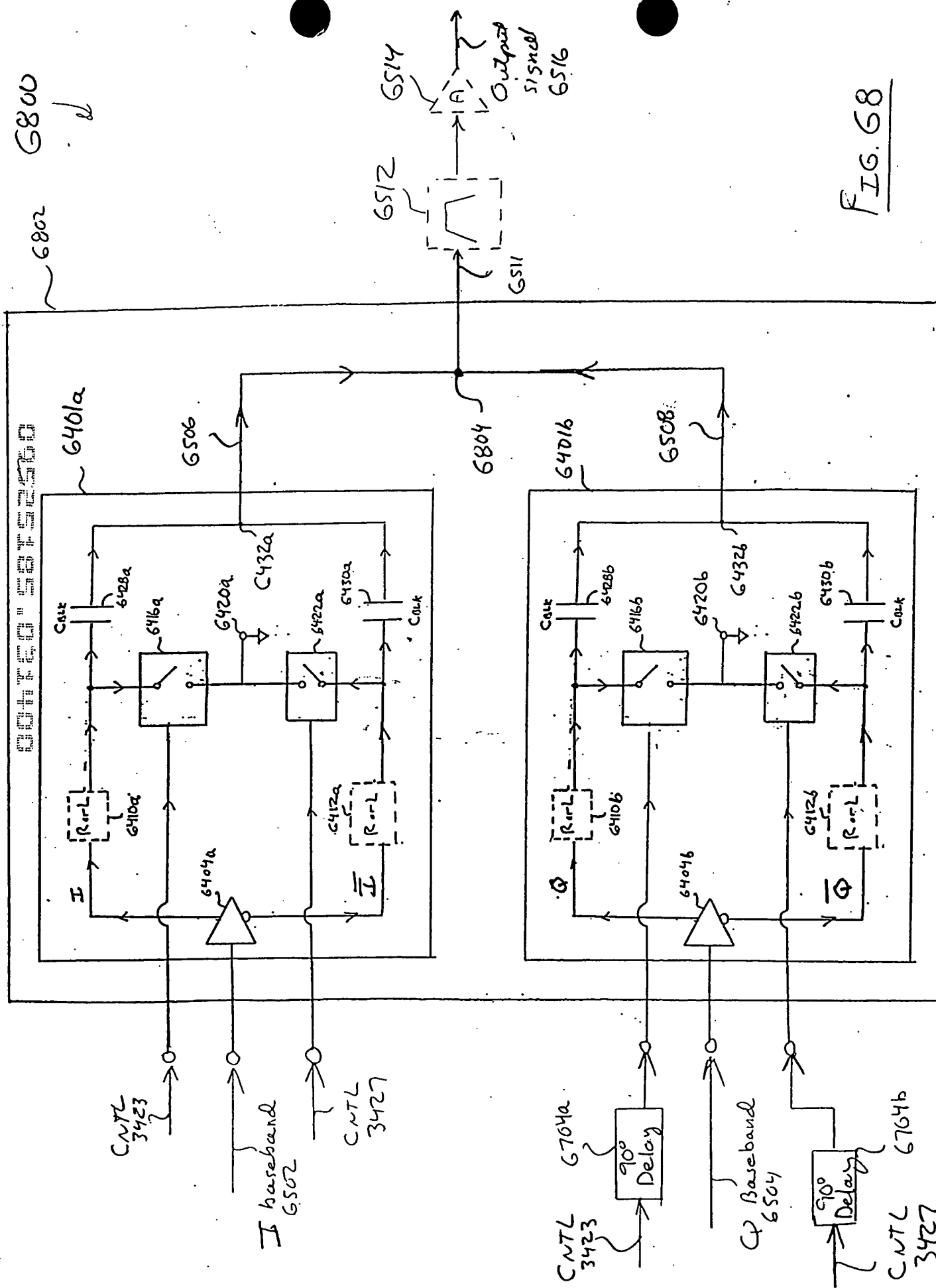


FIG. 68

09525423430

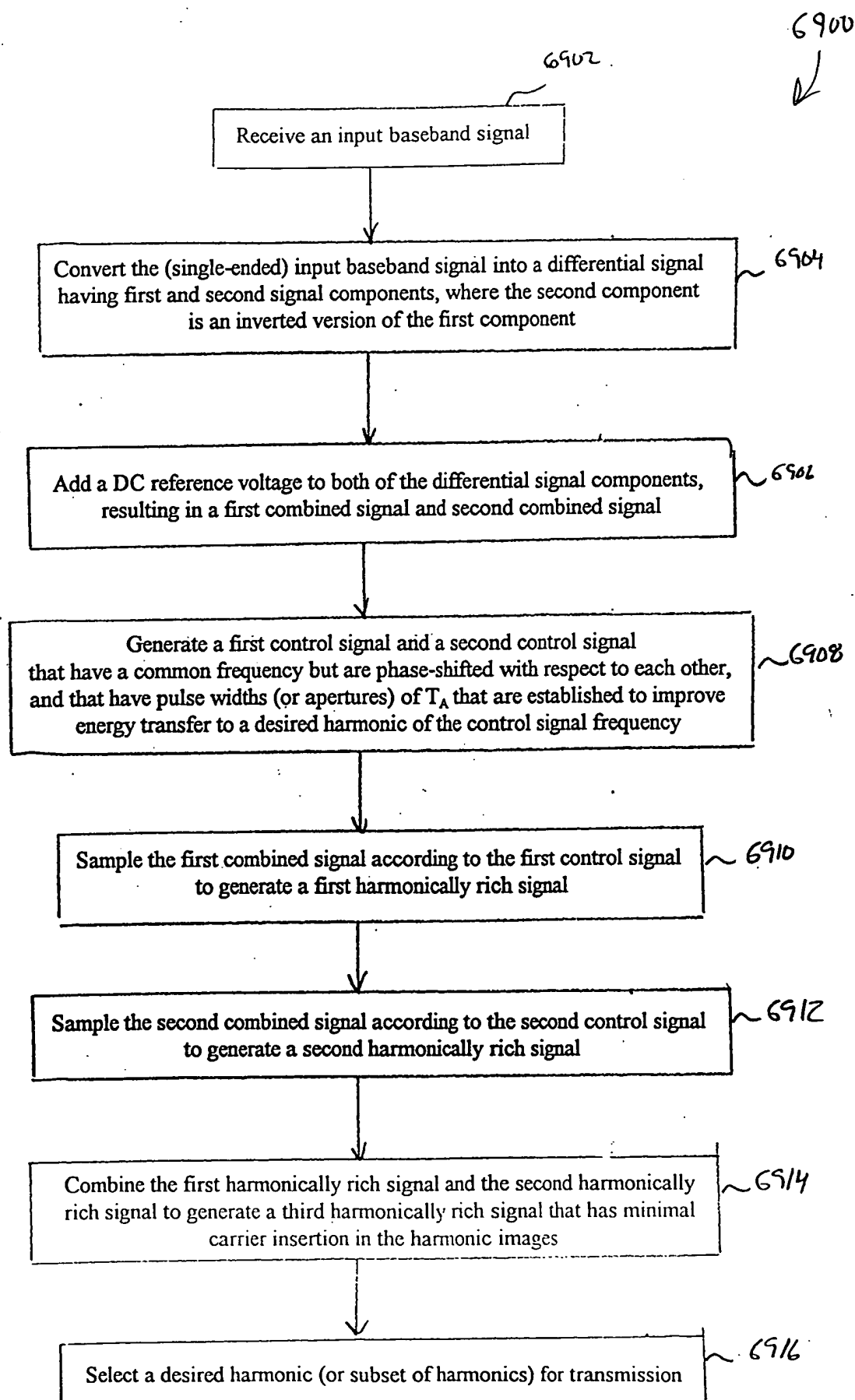


FIG. 69

004430 52550

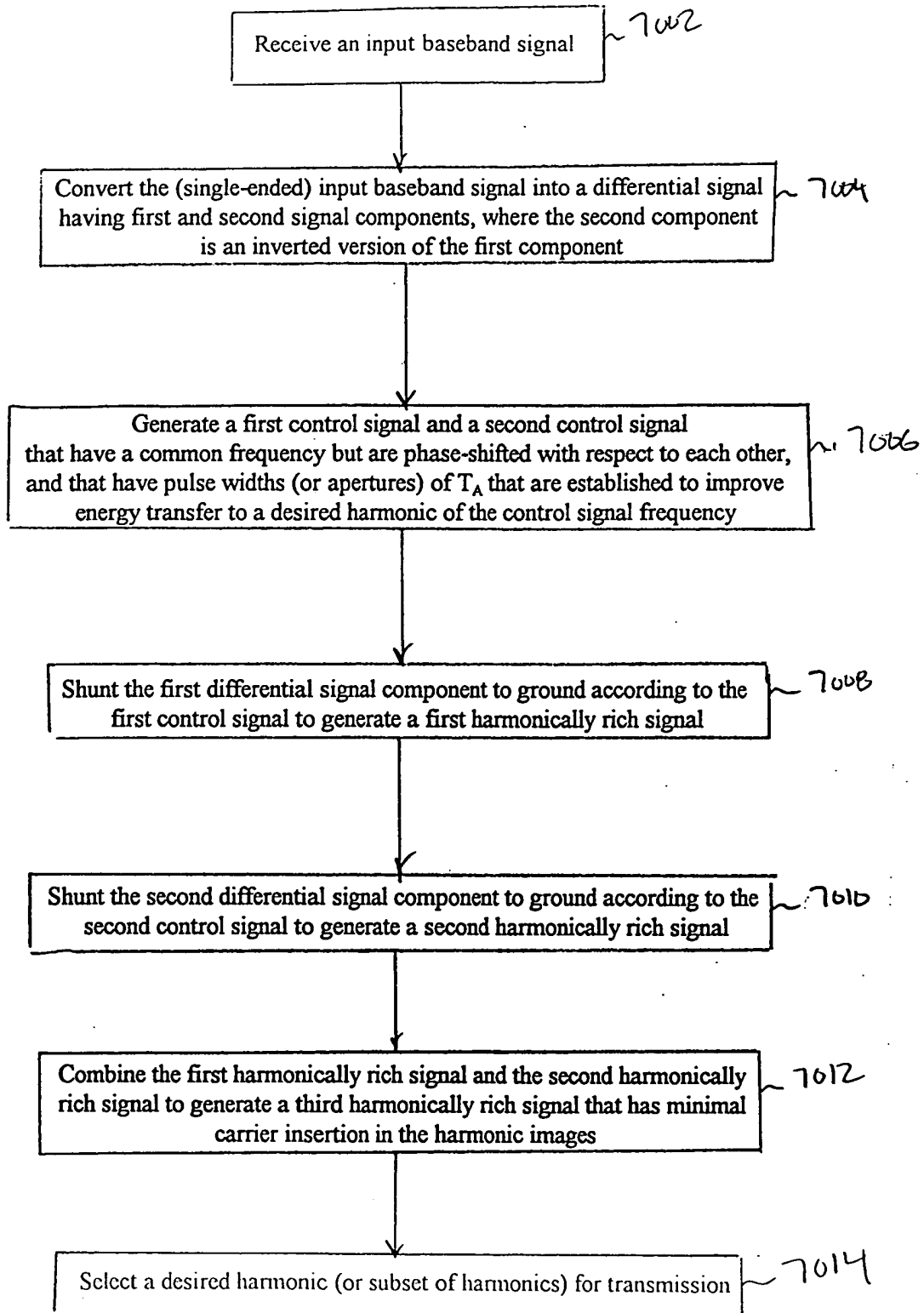


FIG. 70

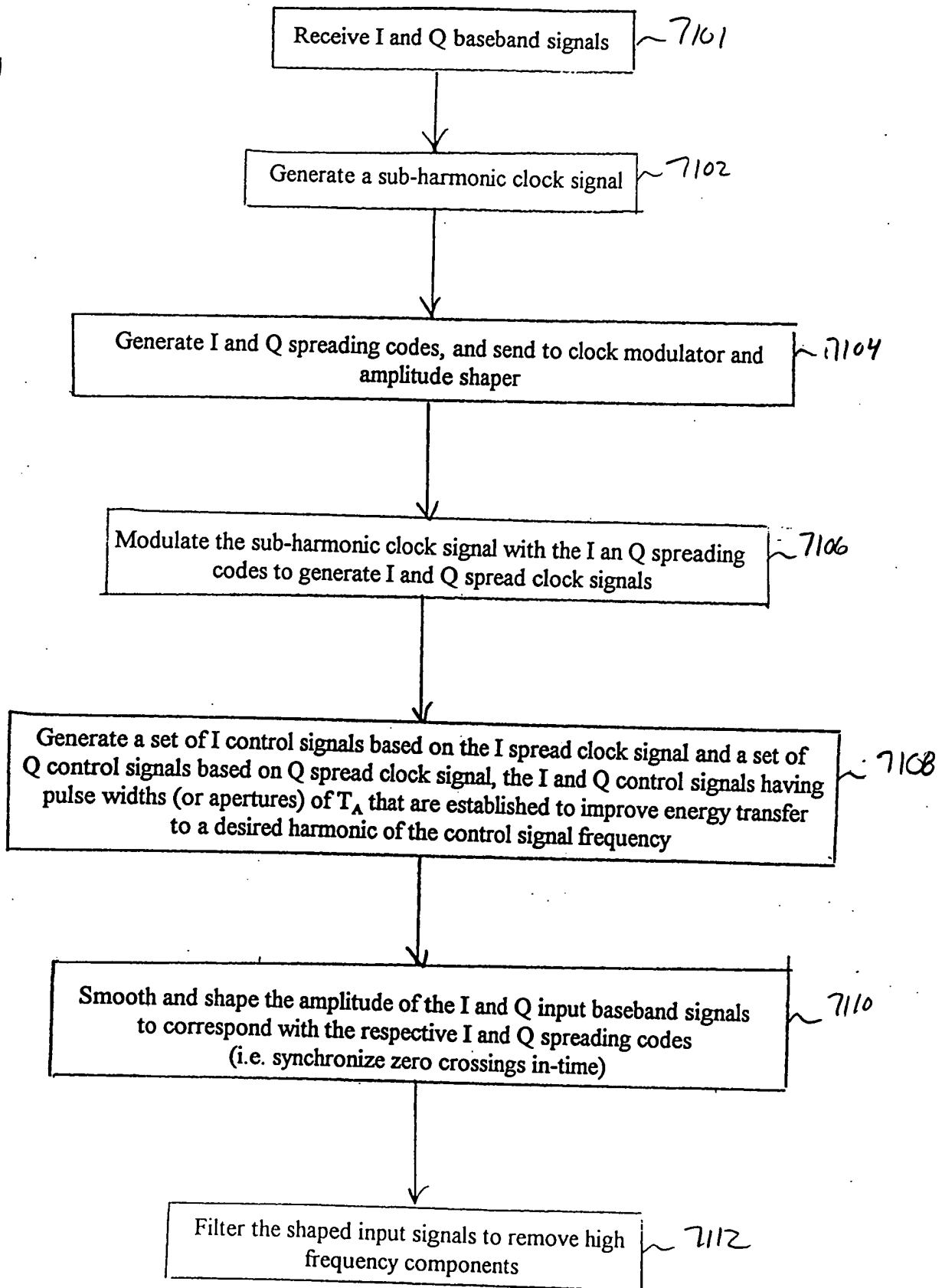
[illegible]

FIG. 71A

7100
(cont.)

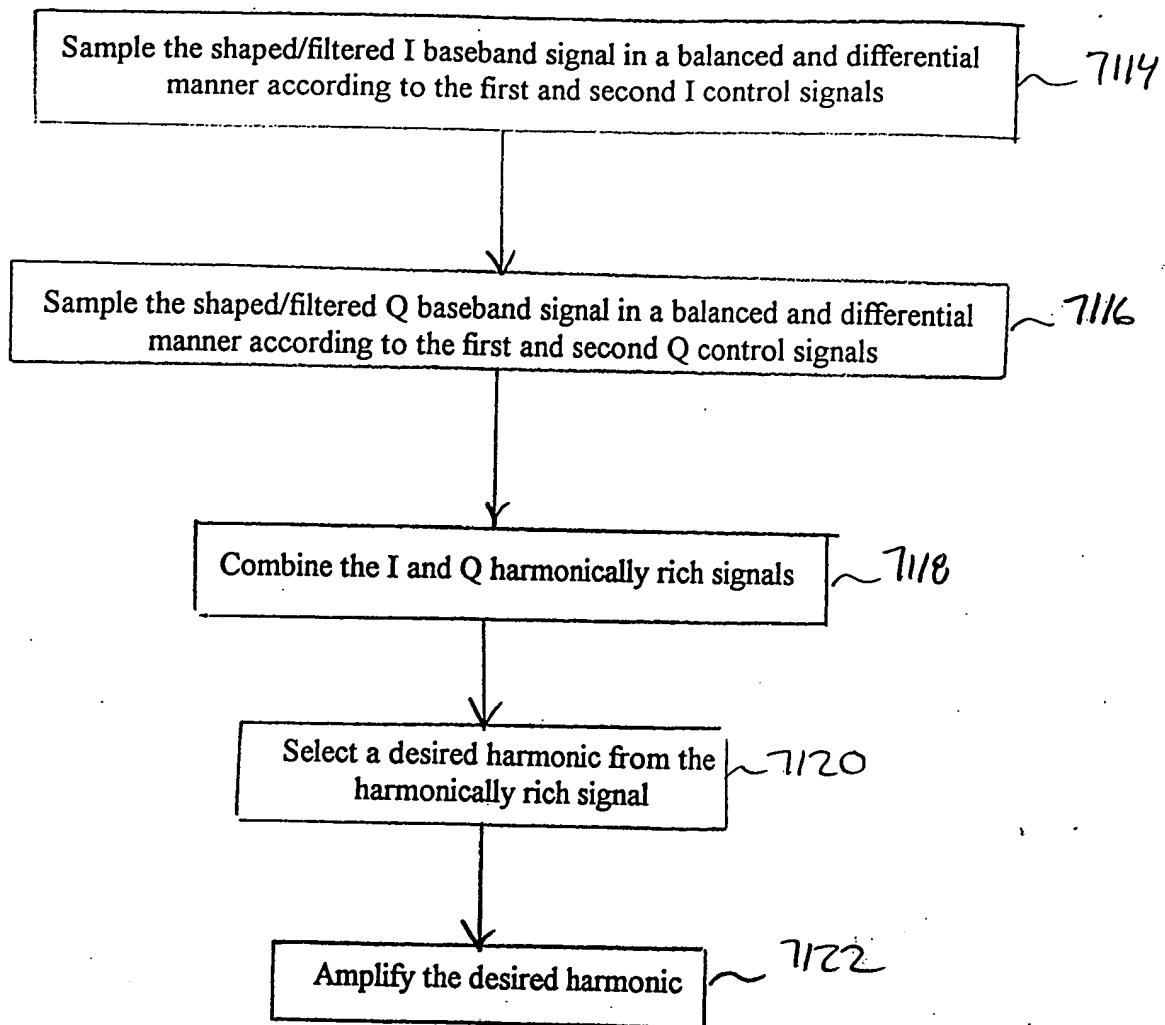


FIG. 710B

7200
↓

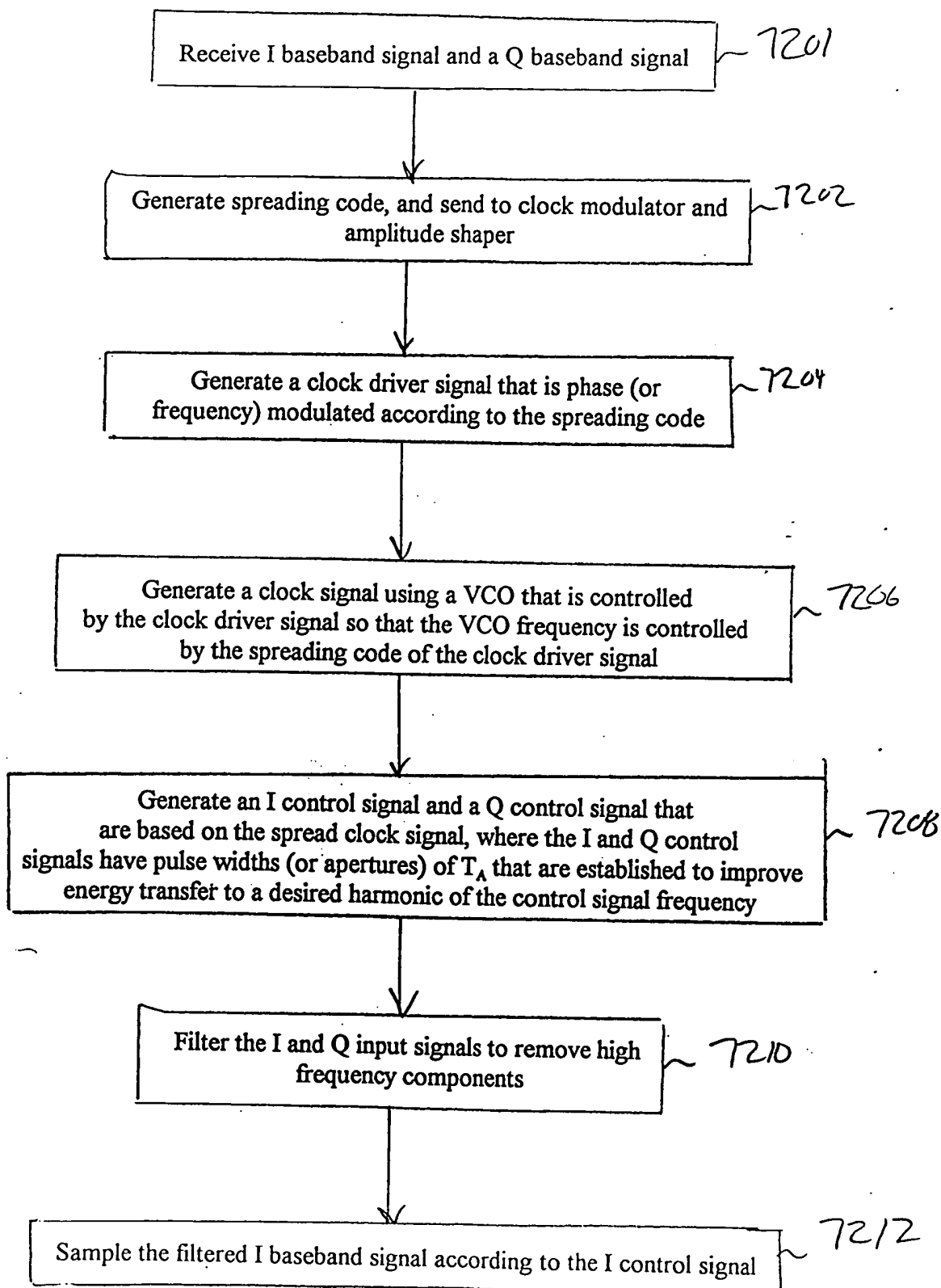
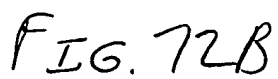


FIG. 72A

[illegible]

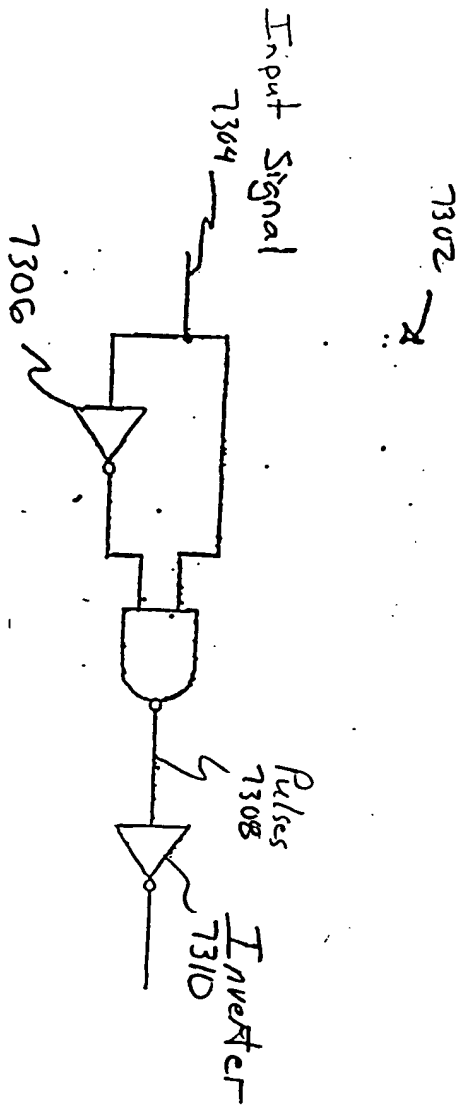


FIG. 73A

FIG. 73B

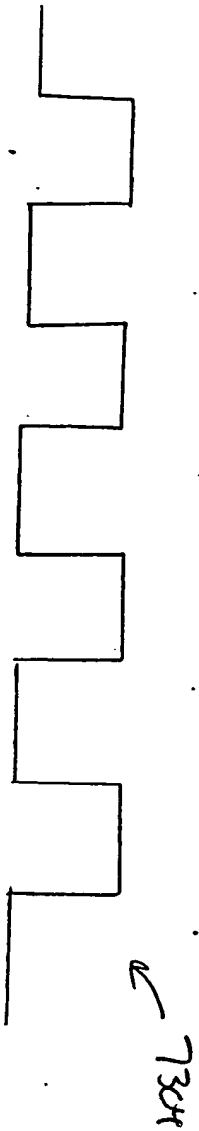


FIG. 73C

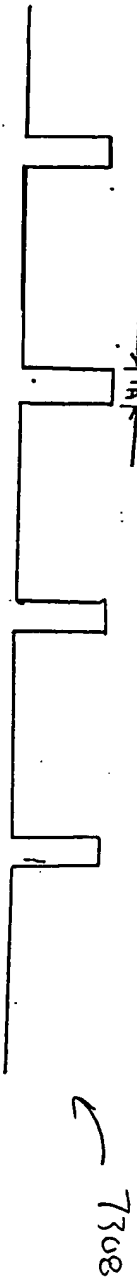


FIG. 73D

FIG. 73E

7400



Accept the input spread spectrum signal
having center frequency f_c

~7401

Divide the input spread spectrum signal
into an I spread spectrum signal and
a Q spread spectrum signal

~7402

Generate a sub-harmonic oscillating signal
having a frequency f_c/n

~7404

Generate a spreading code,
such as a PN code

~7406

Modulate the oscillating signal
with the spreading code, resulting in spread oscillating signal

~7408

Generate a spread control signal
from the spread oscillating signal, the spread control
signal having non-negligible pulse widths or apertures

~7410

FIG. 74A

↓

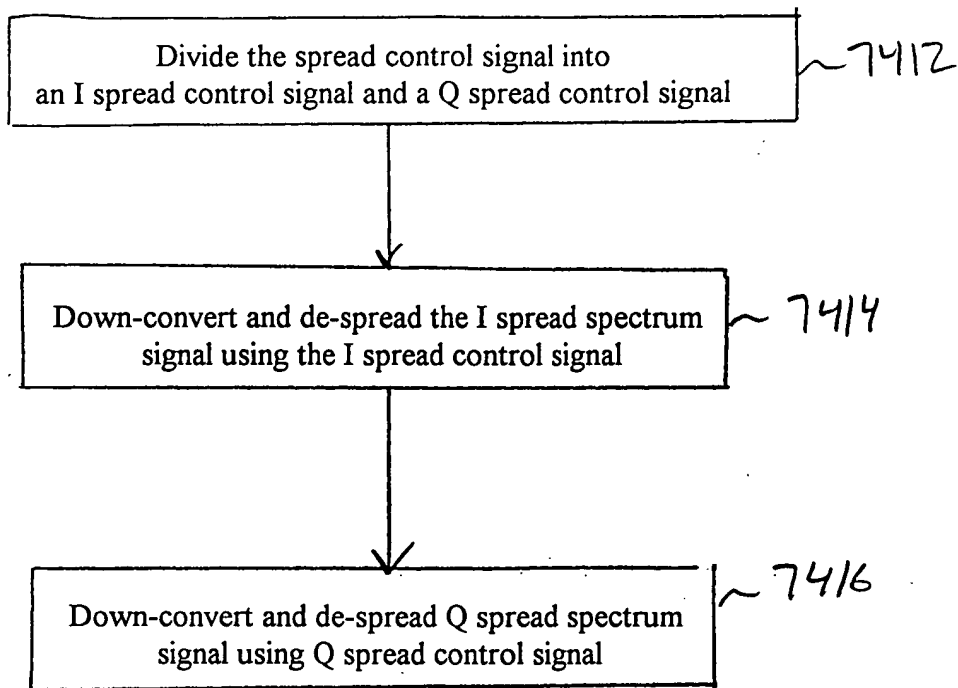


FIG. 74B

[illegible]



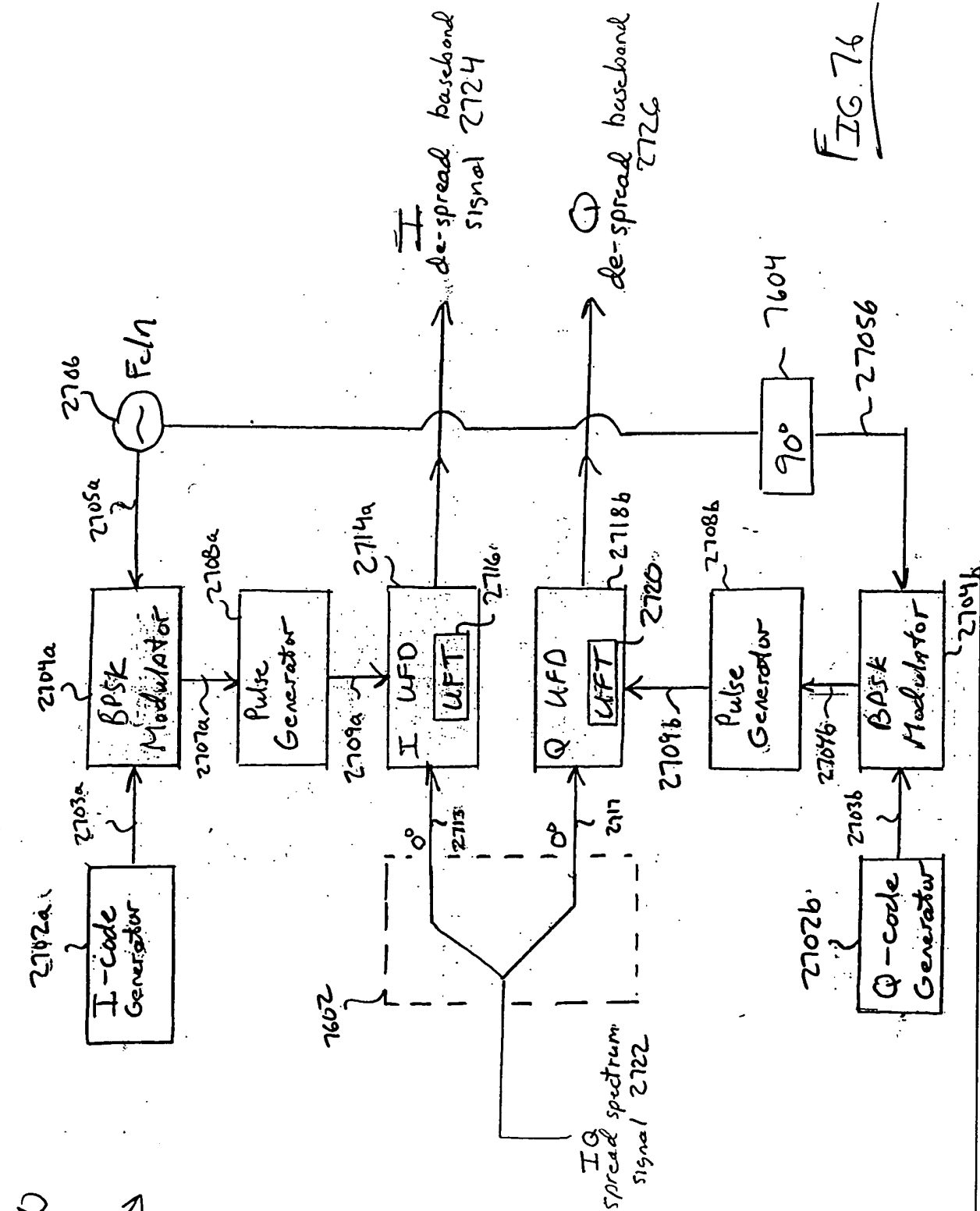


FIG. 76

7700
↓

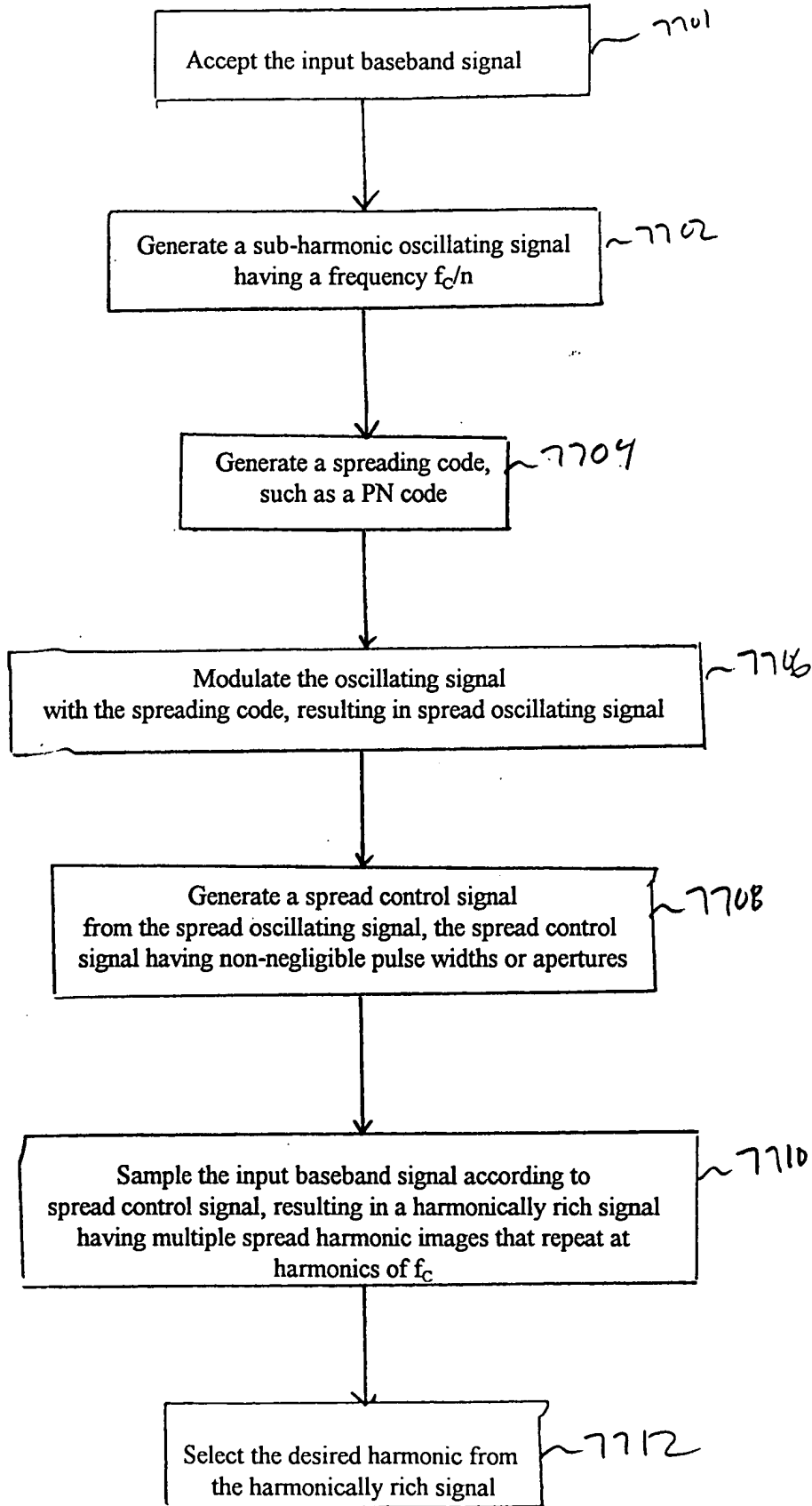


FIG. 77

0955405.034400

7800
↓

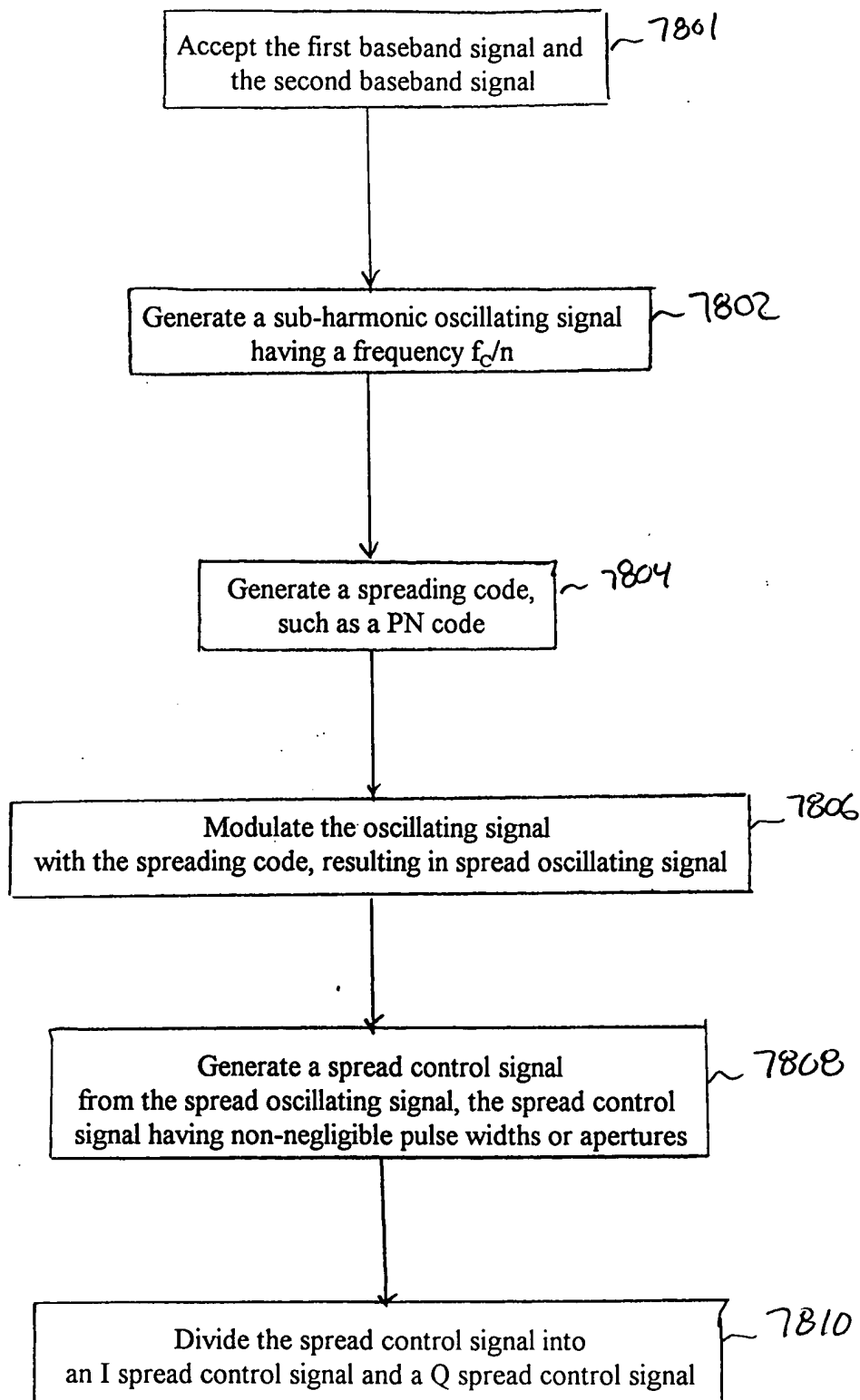


FIG. 78A

7800
(cont.)



Sample the first baseband signal according to the I spread control signal, resulting in an I harmonically rich signal

~ 7812



Sample the second baseband signal according to the Q spread control signal, resulting in a Q harmonically rich signal

~ 7814



Combine the I harmonically rich signal and the Q harmonically rich signal, resulting in an IQ harmonically rich signal

~ 7816

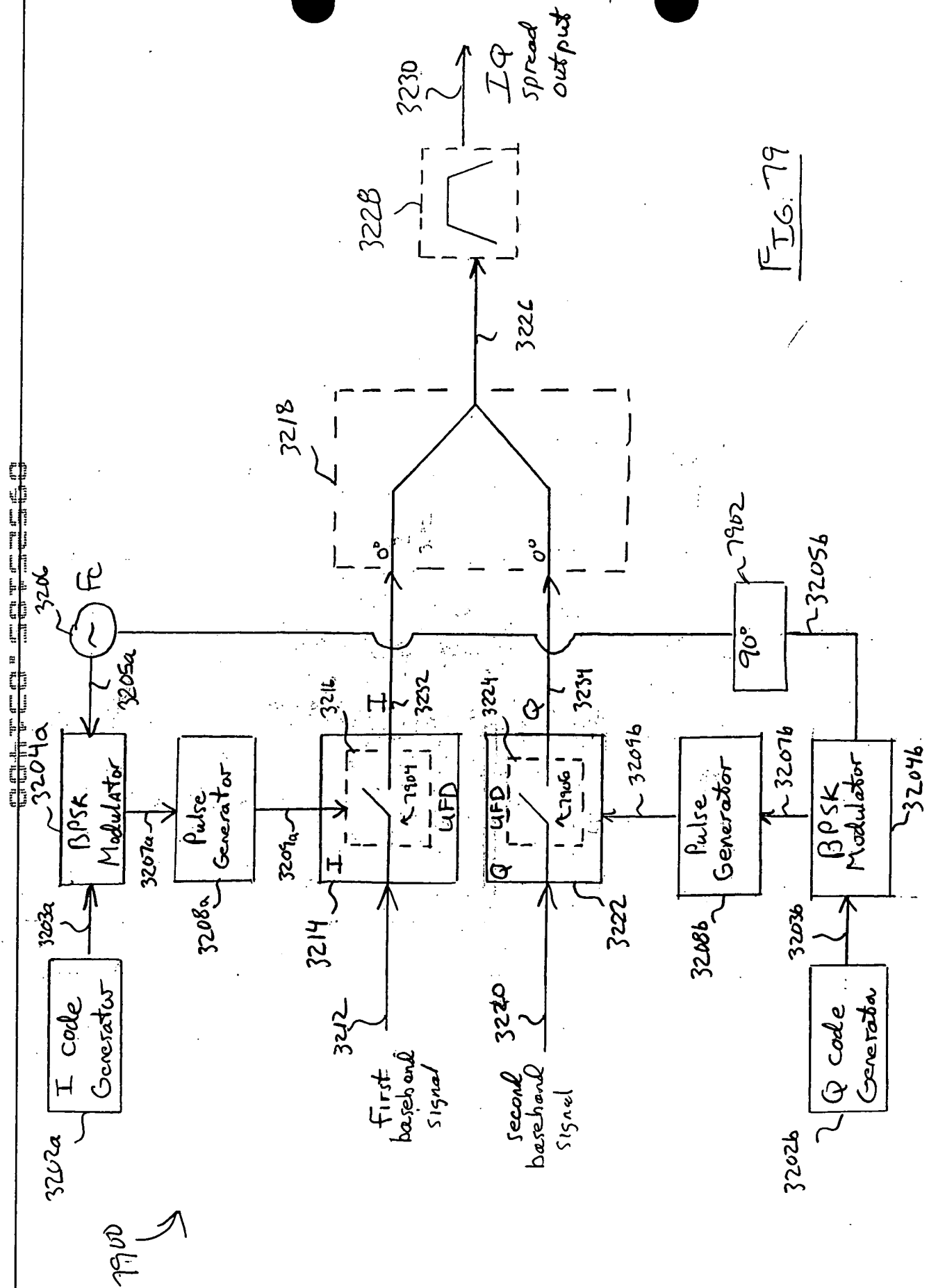


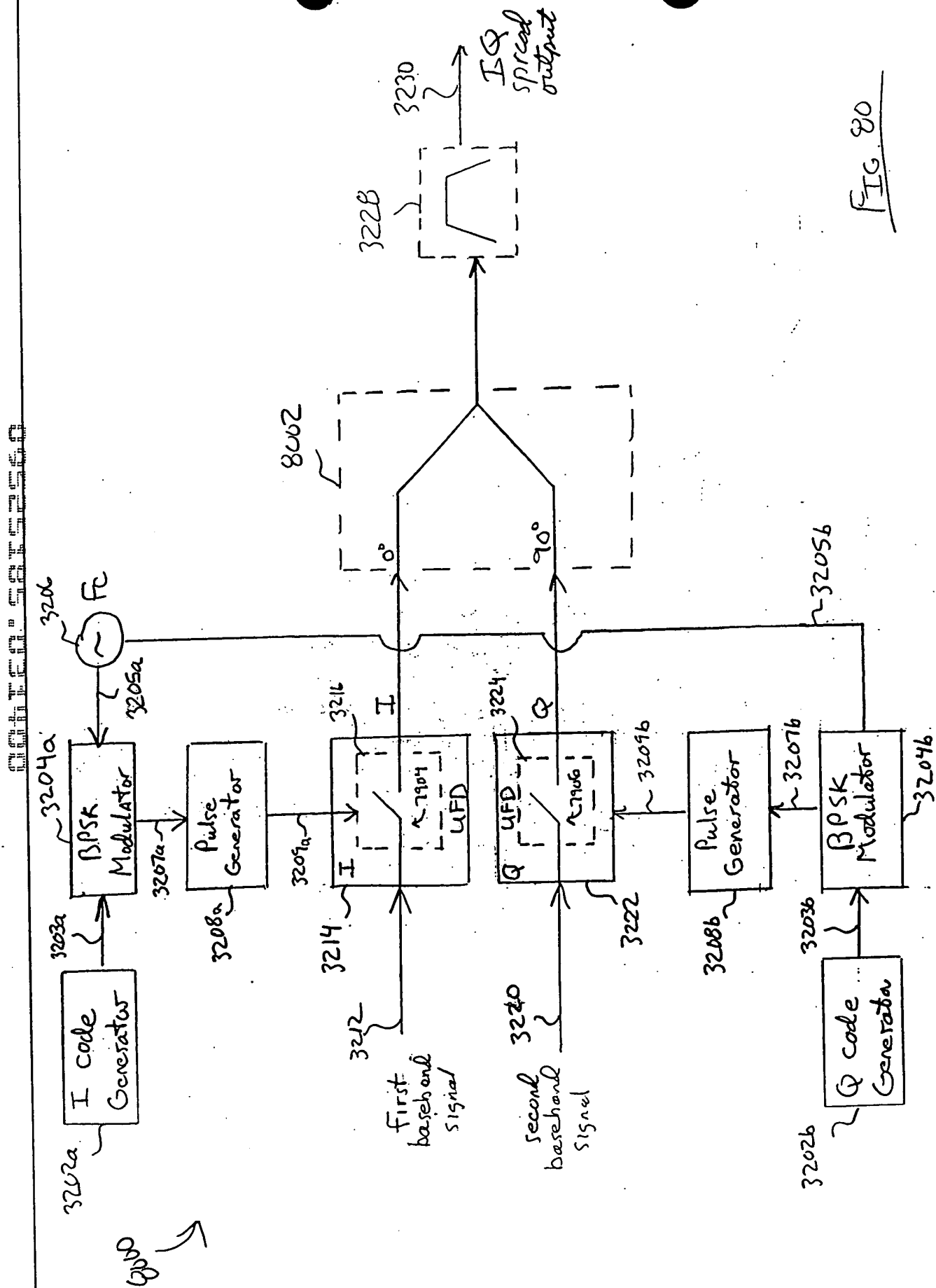
Select a harmonic of interest from the IQ harmonically rich signal

~ 7818

004FED" 50452520

FIG. 78B





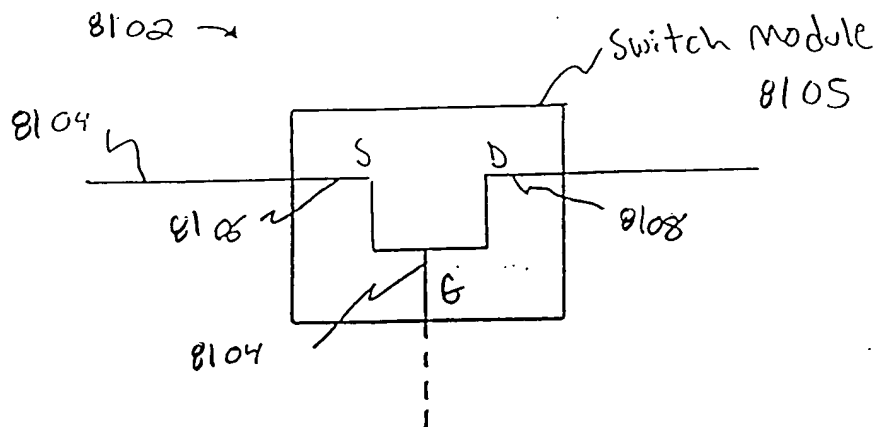


FIG. 81A

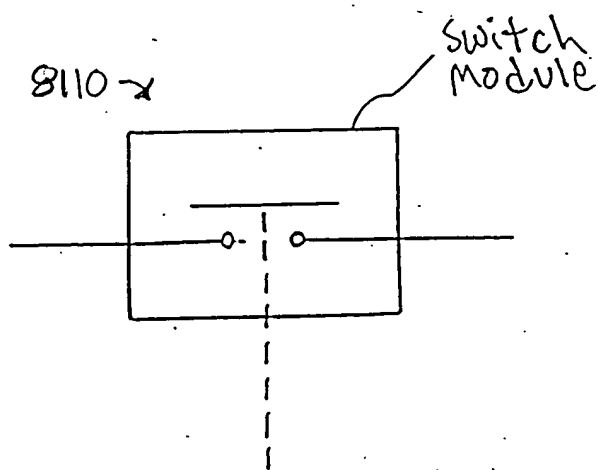


FIG. 81B

2 **THE NATIONAL BUREAU**

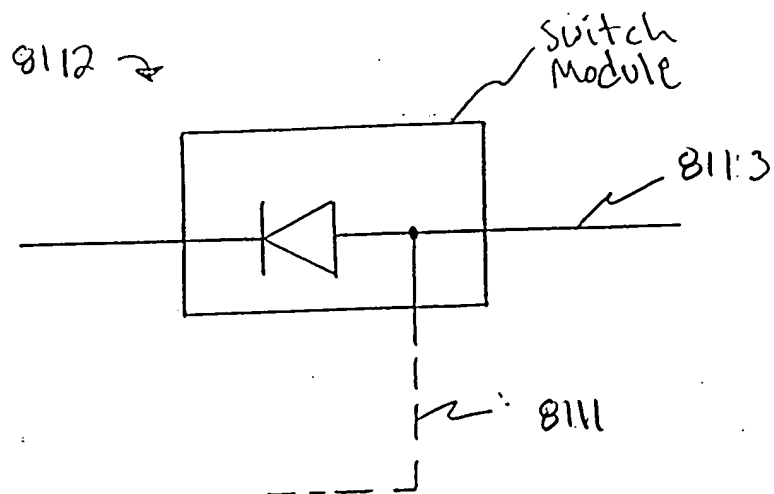
[illegible]

FIG. 81C

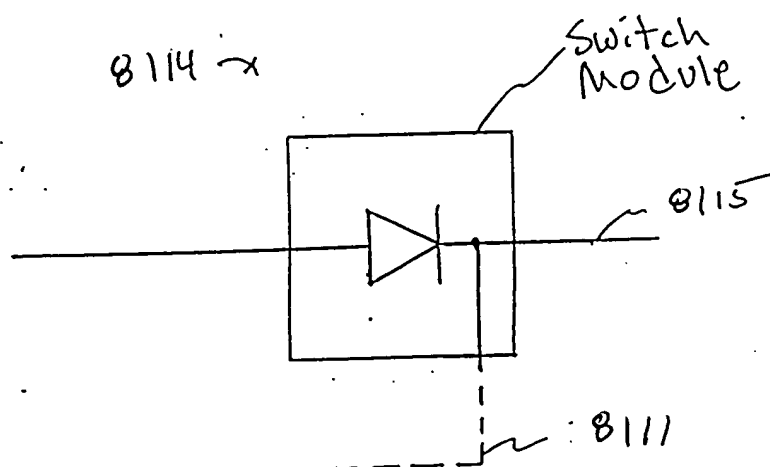


FIG. 81D

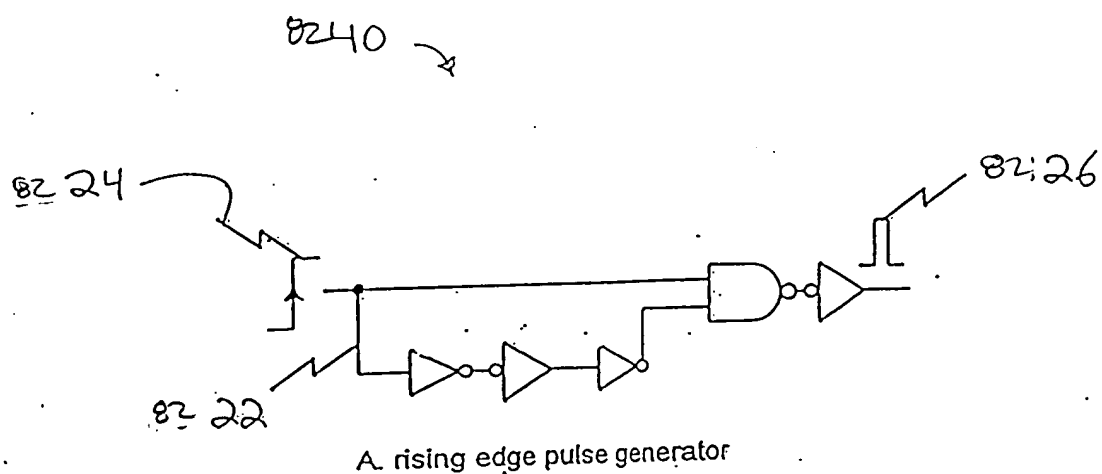
[illegible]

FIG. 82A

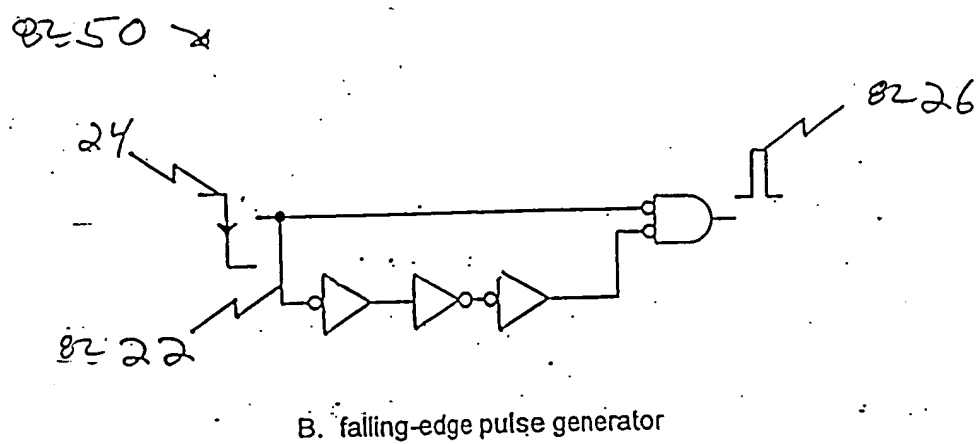
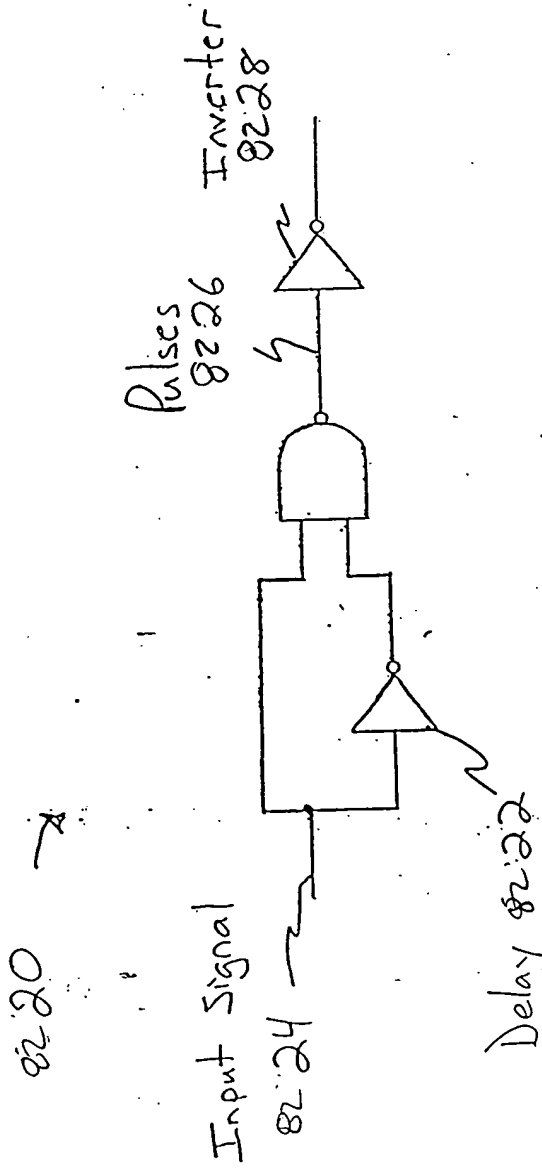


FIG. 82B



-substantial equivalence in logic only is necessary.
 -u7 shown for polarity consistency with
 ckt examples described elsewhere.

FIG 82C

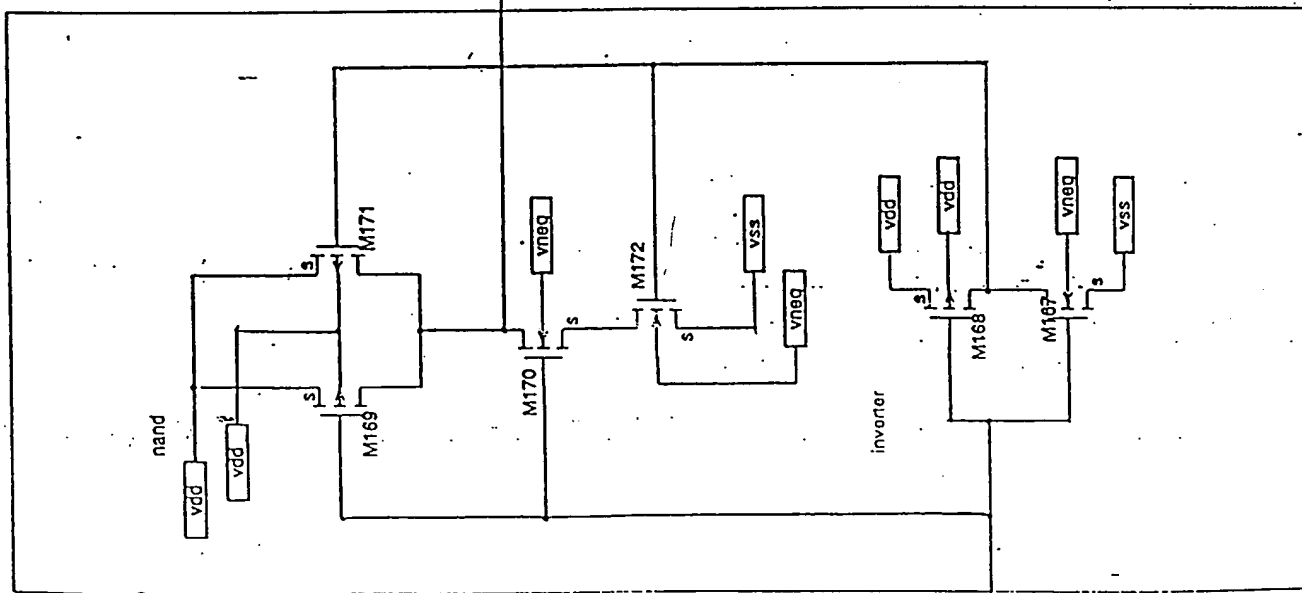


FIG 82D

Input
Signal
8228

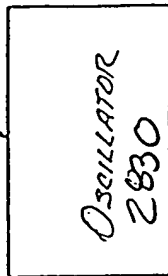


FIG. 82E

Input
Signal
8224

5

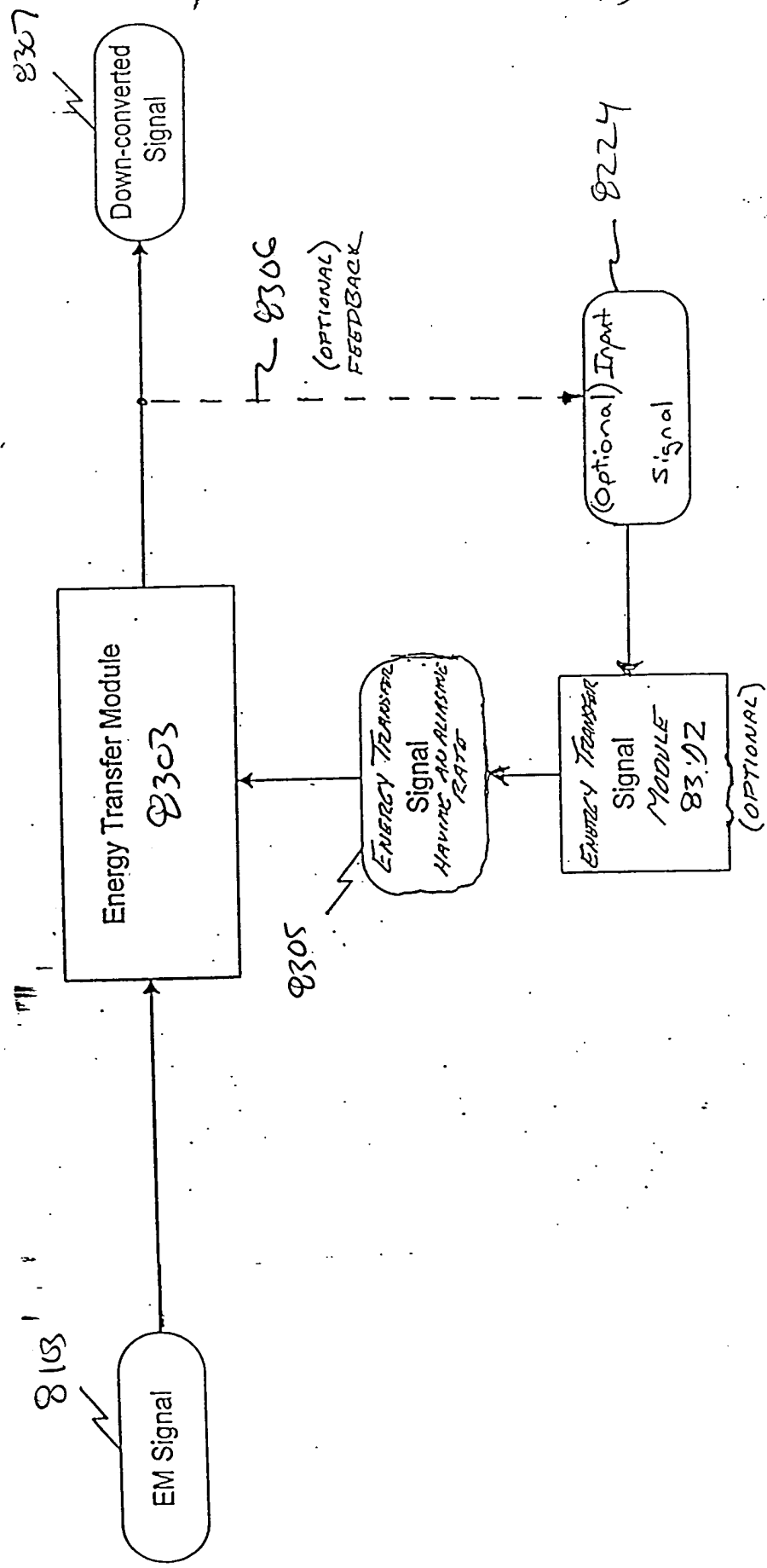


FIG. 83

004400 307312560

2058

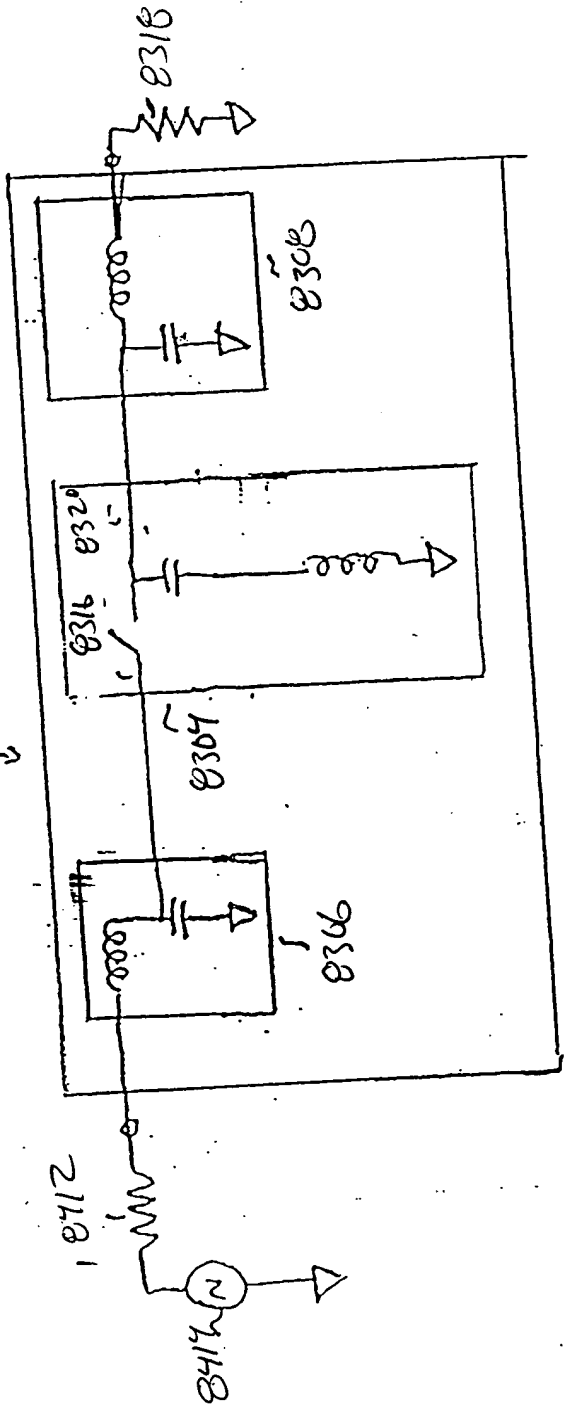


Fig 84 - Impedance Matched Aliasing Module

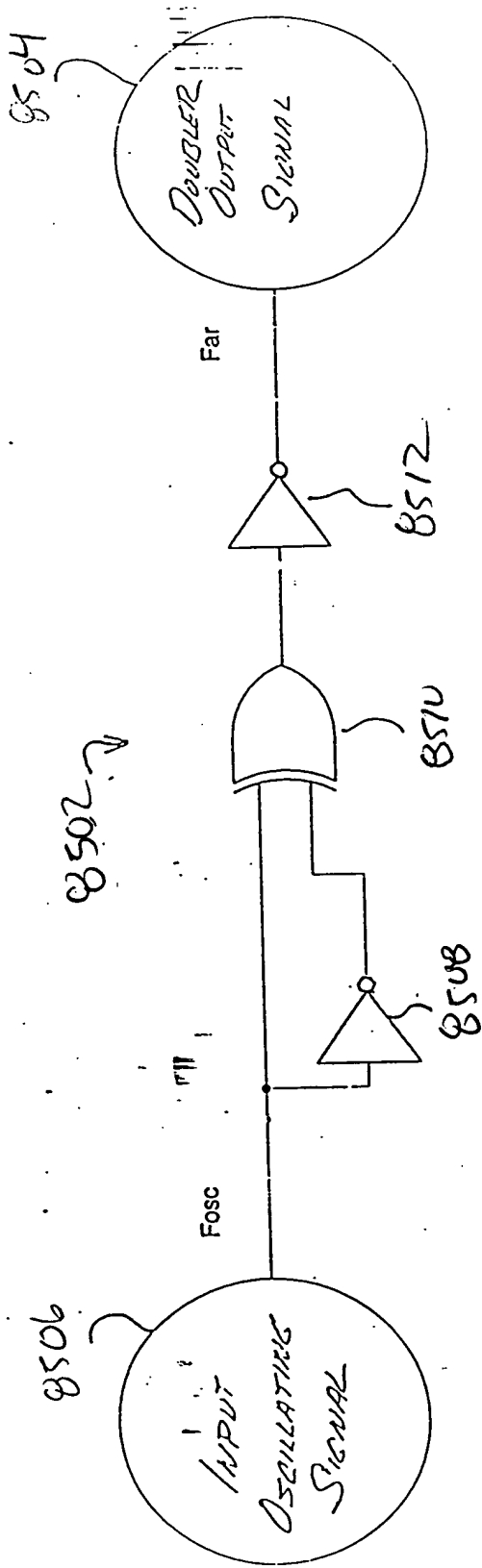
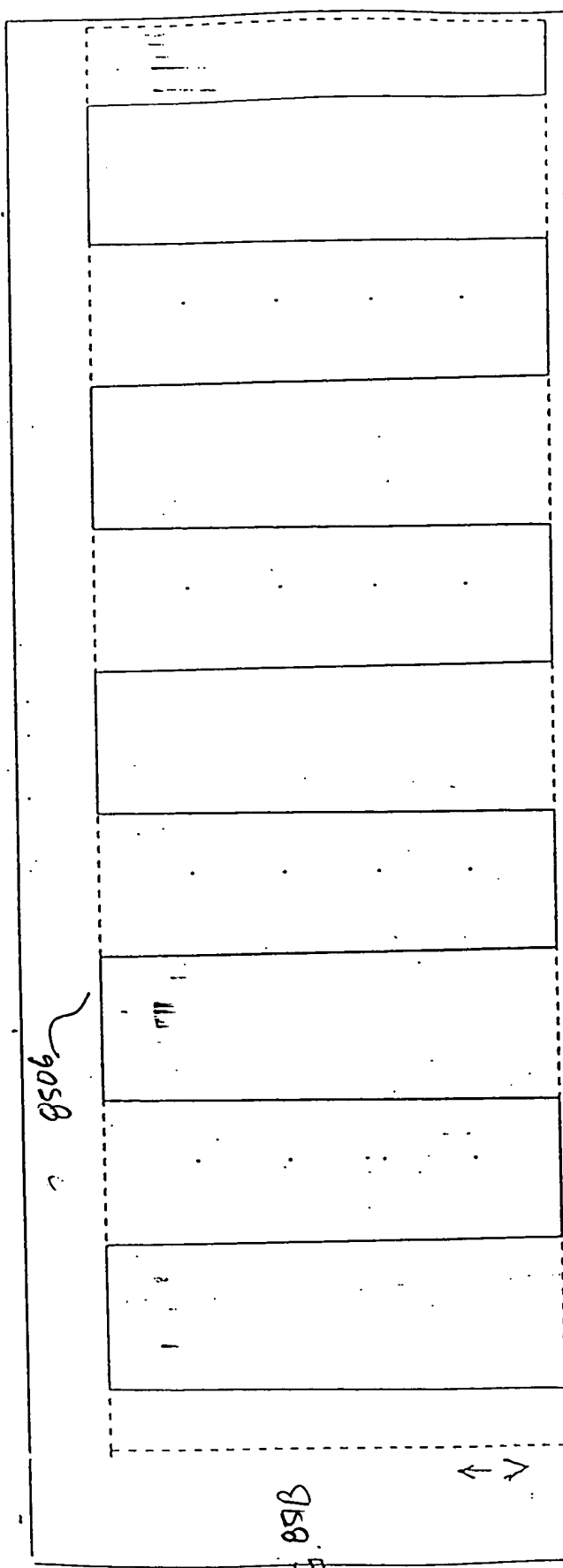


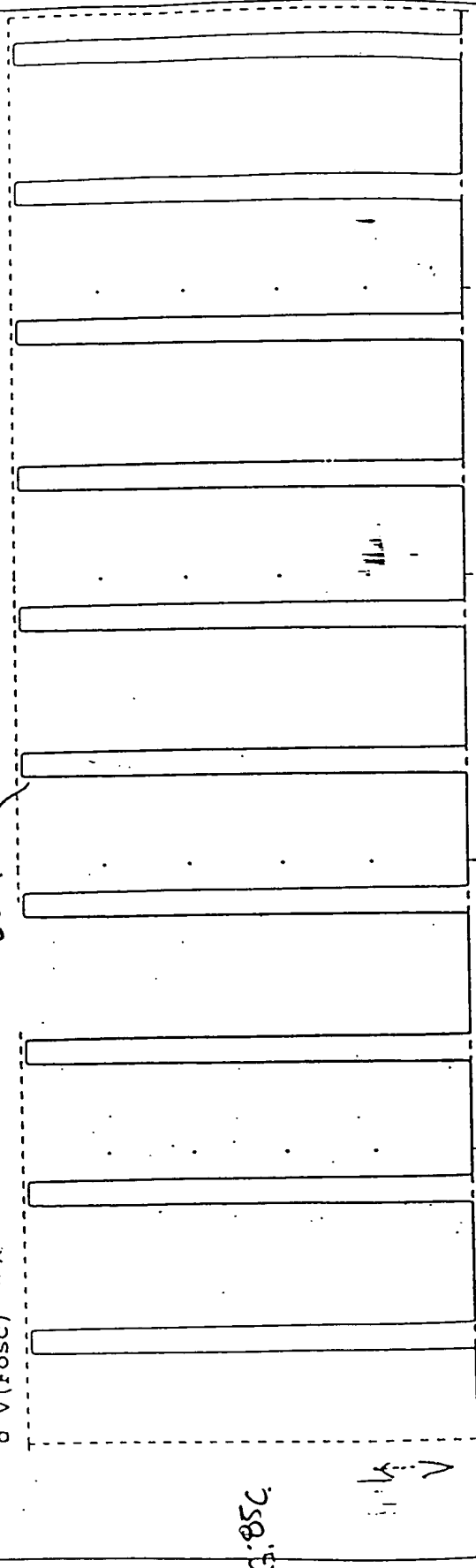
FIG. 85A

FIG. 85B



8507

FIG. 85C



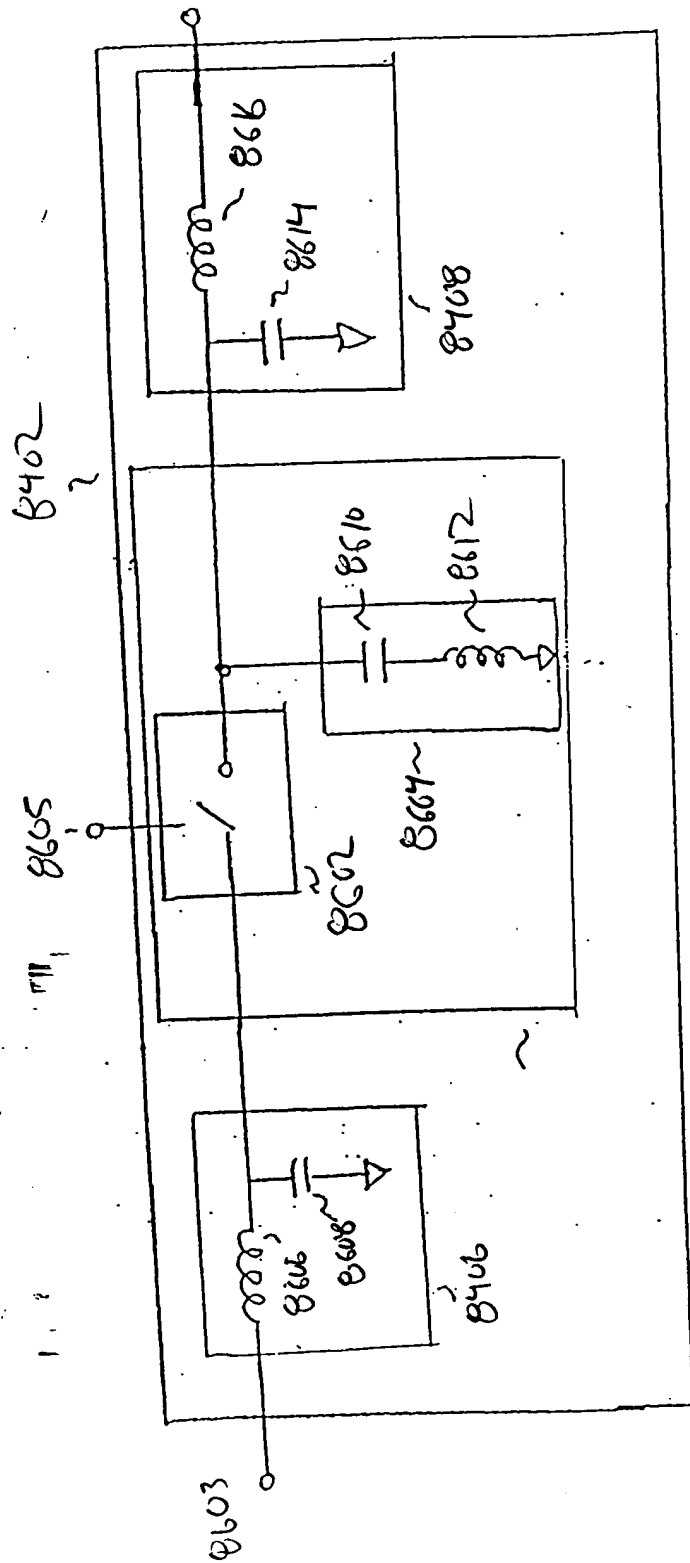


Fig 86 - Masing Module

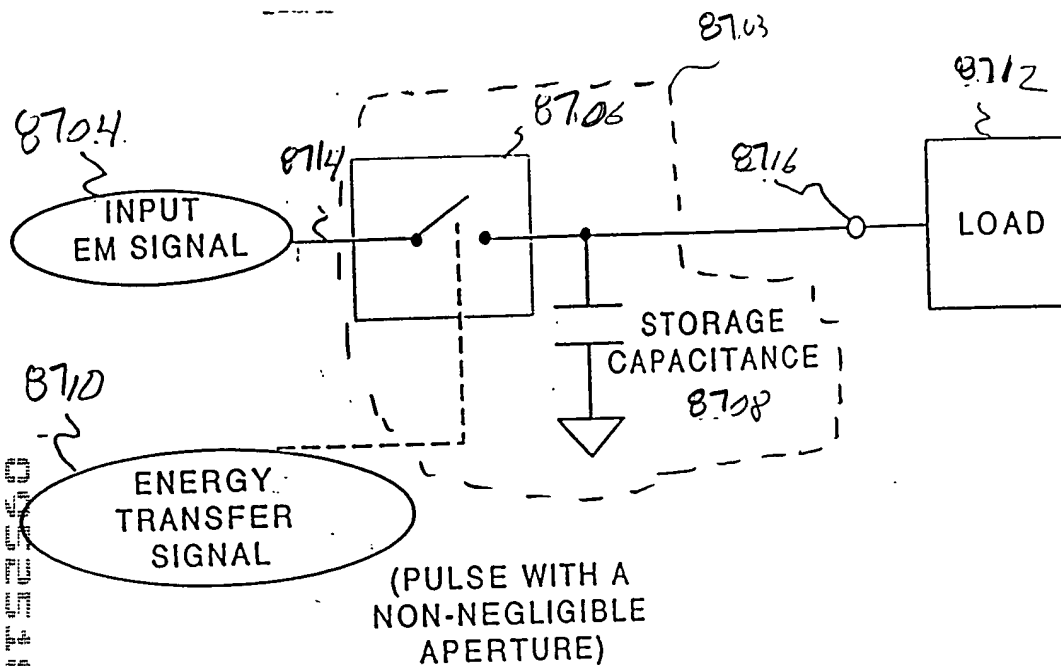


FIG 87A

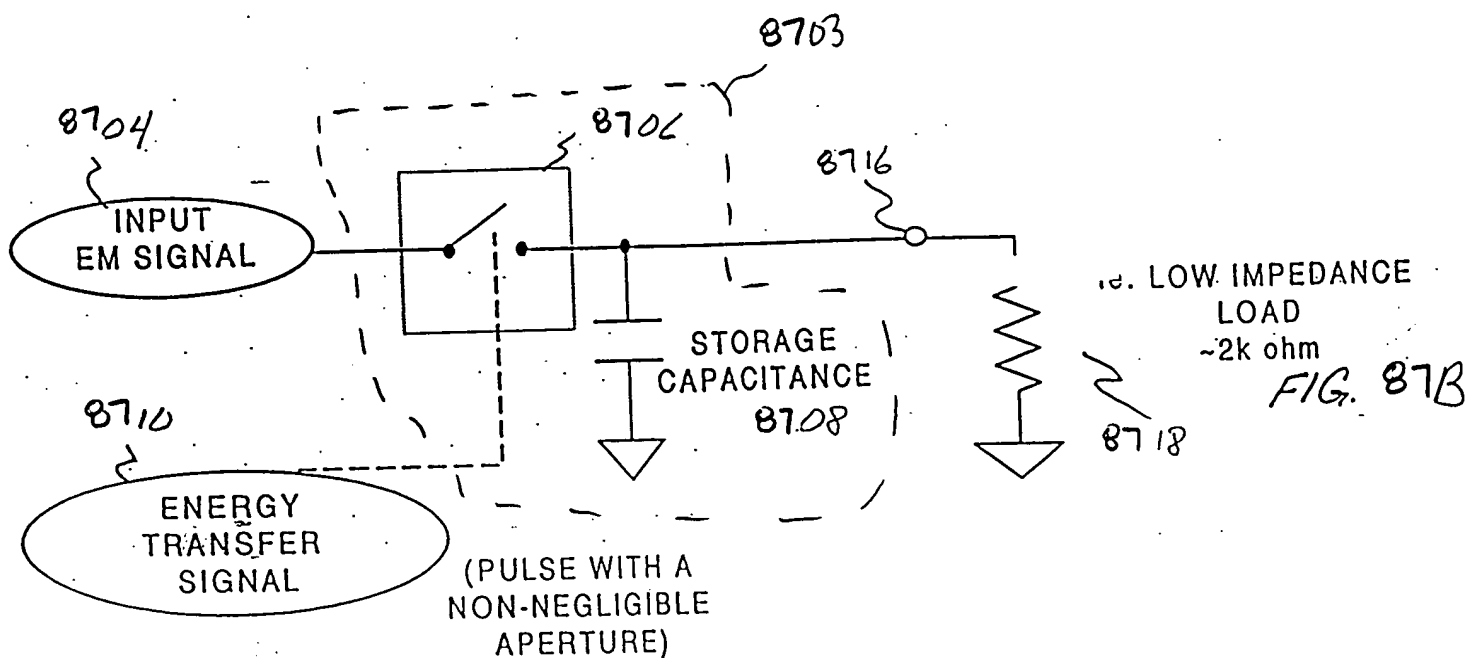


FIG. 87B

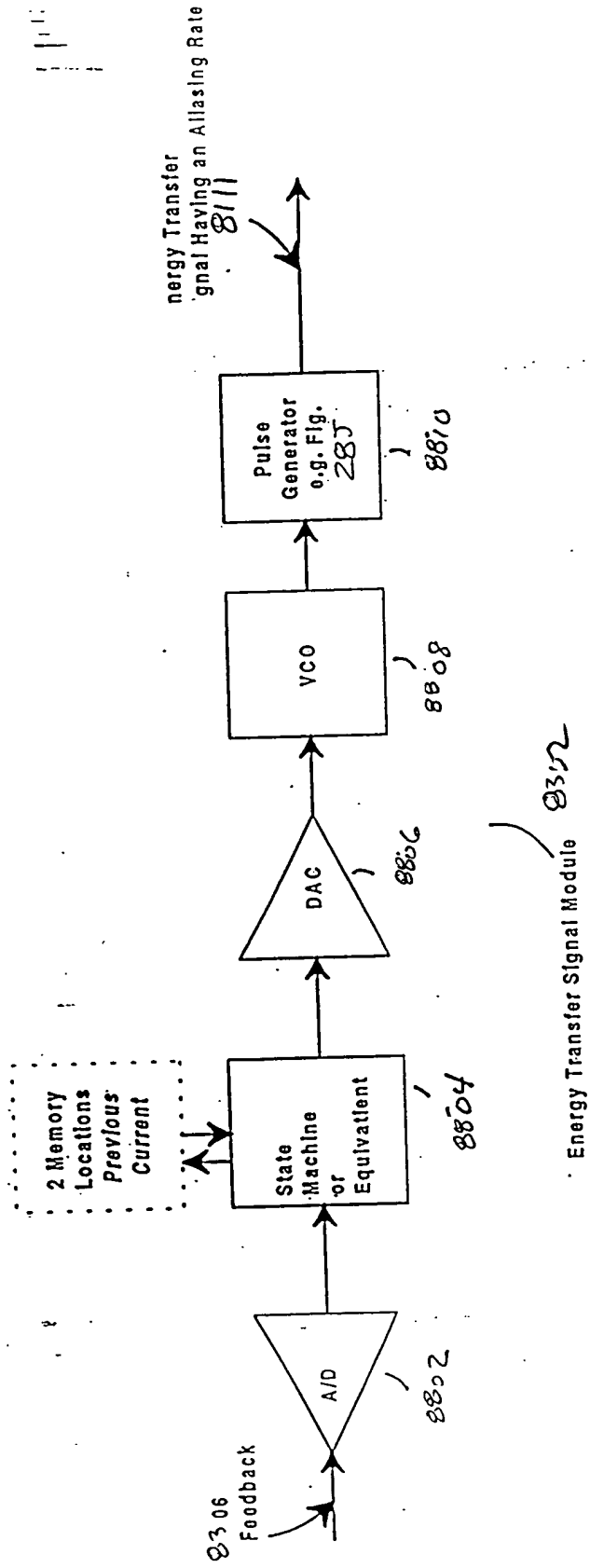
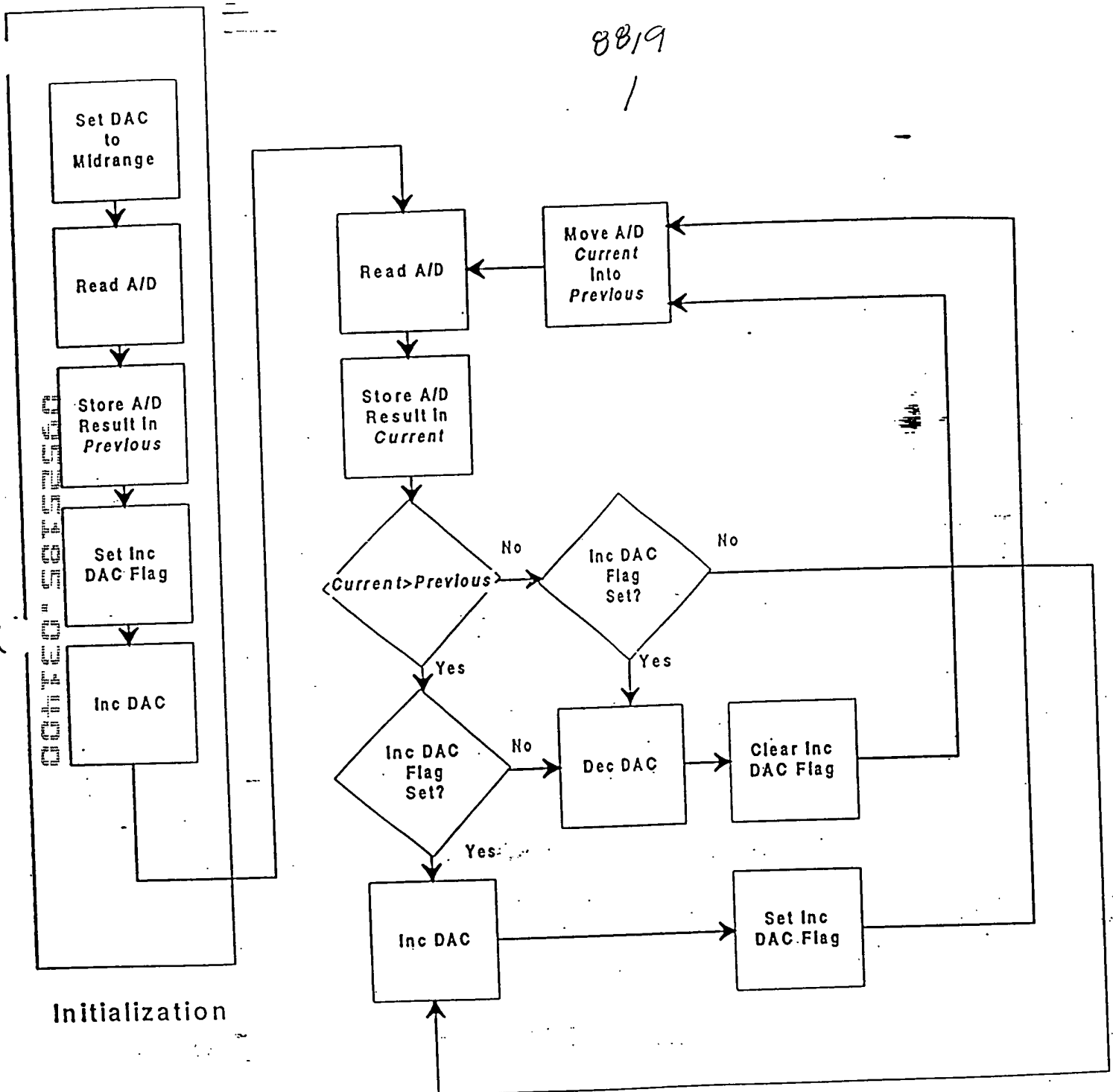


FIG. 88A

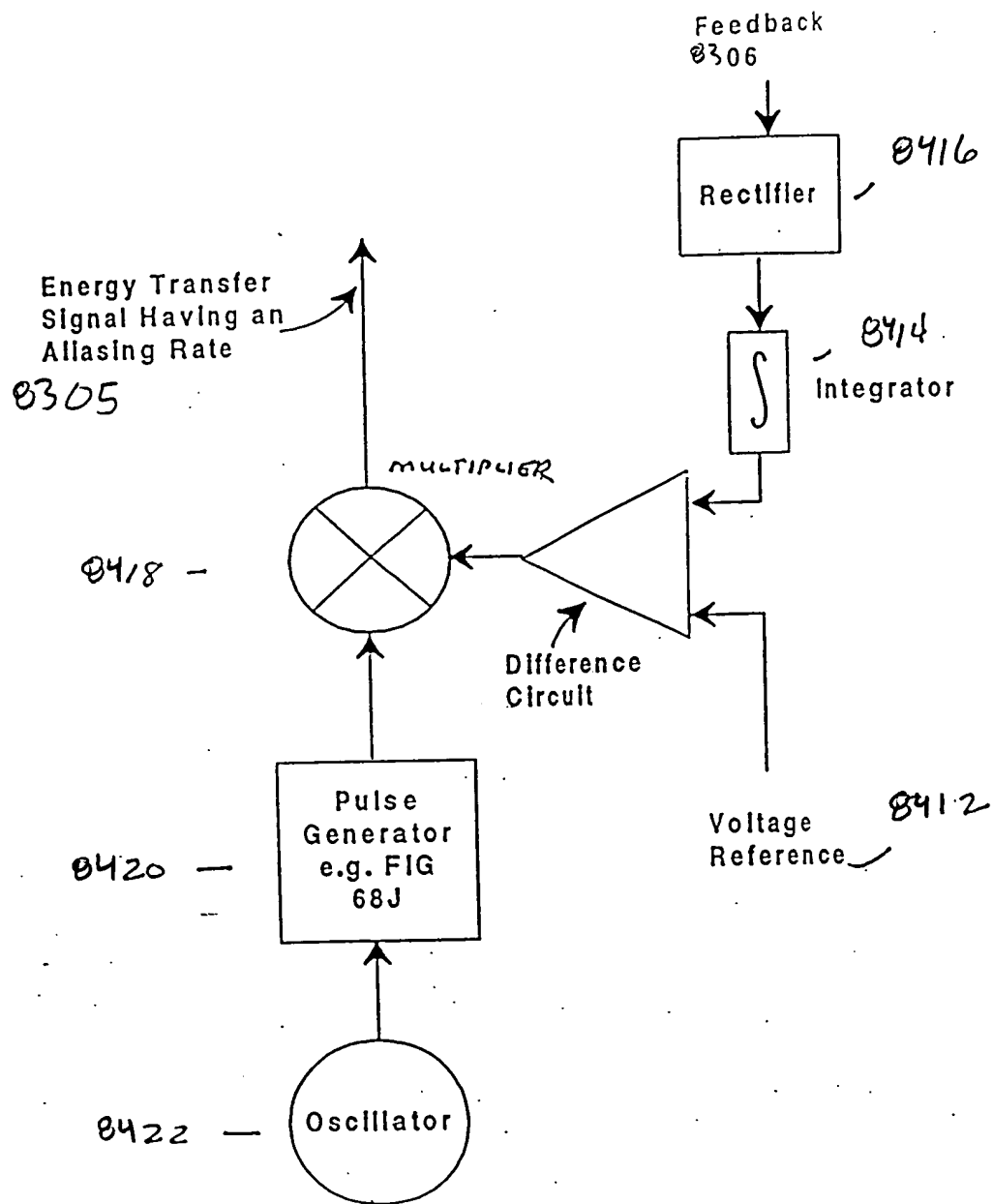
8819

1



State Machine Flowchart

FIG. 88B



Energy Transfer Signal Module 8302

FIG. 88C

DATE: 08/05/00

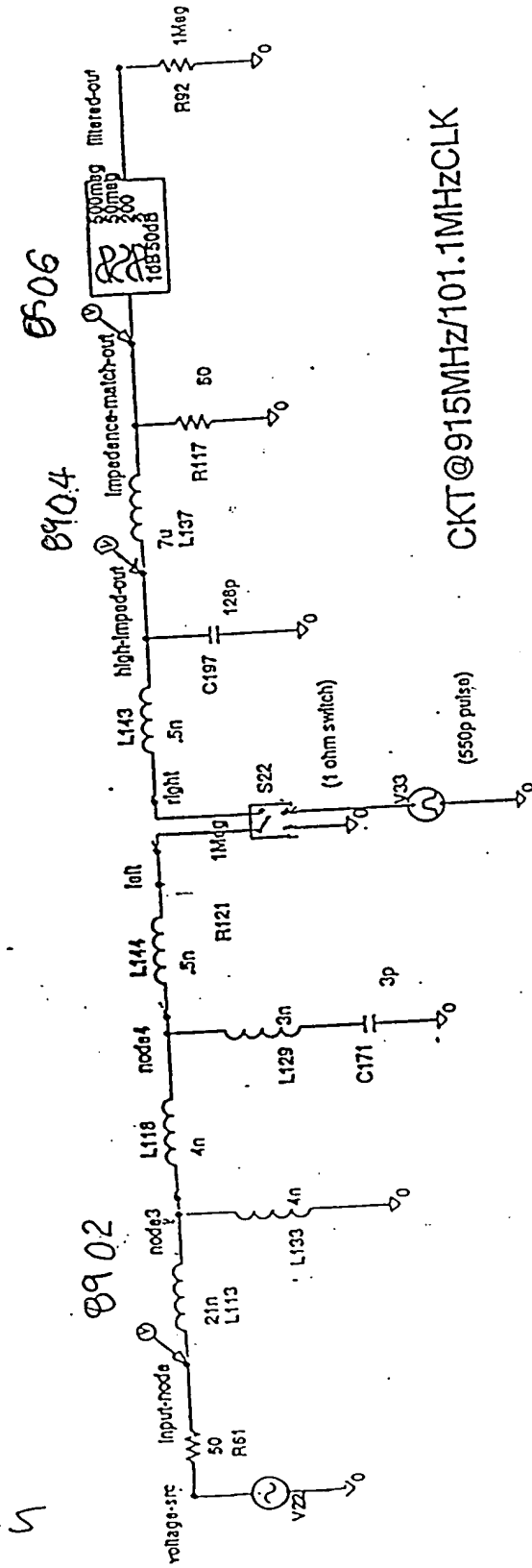


Fig. 89

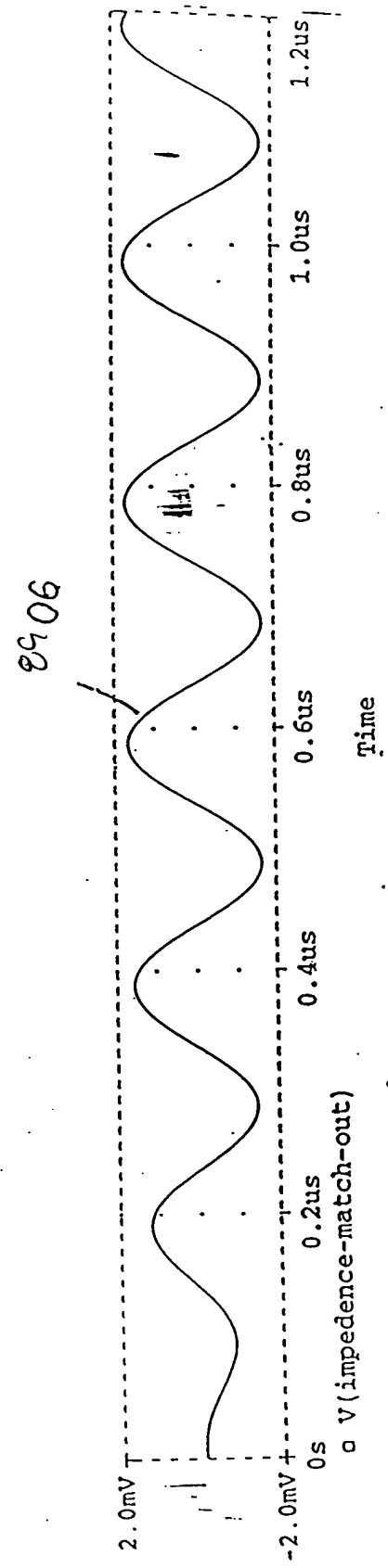
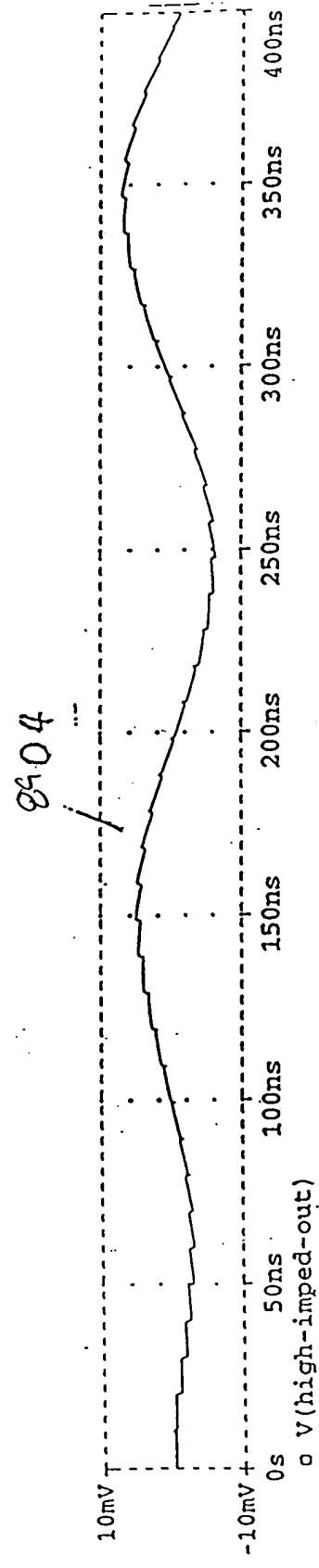
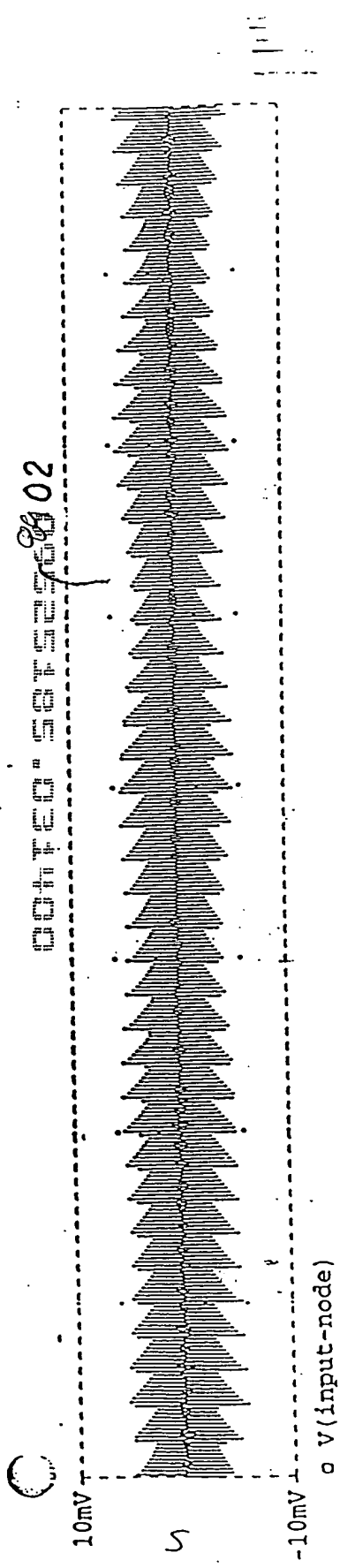


Fig. 90

2/16



Fig 11

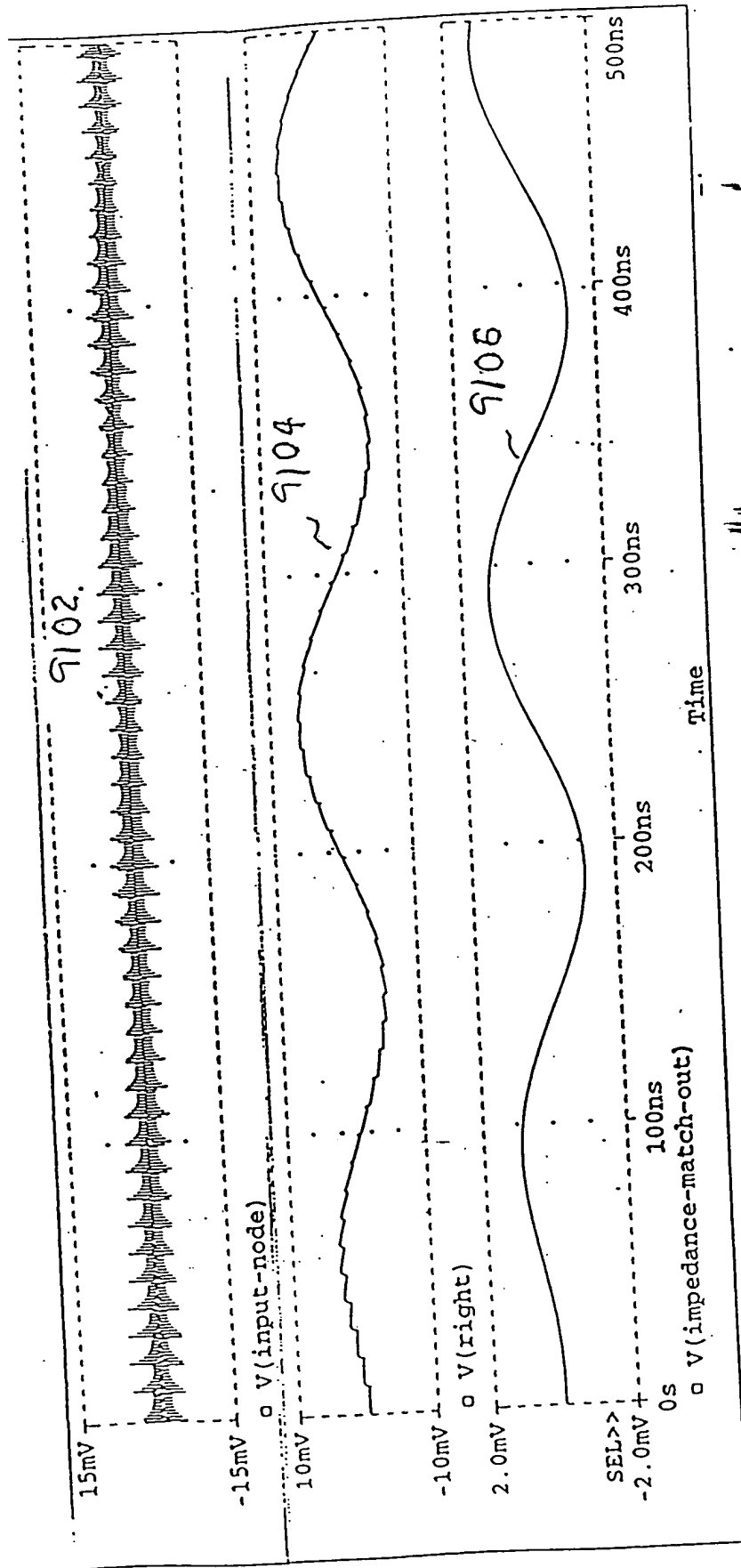
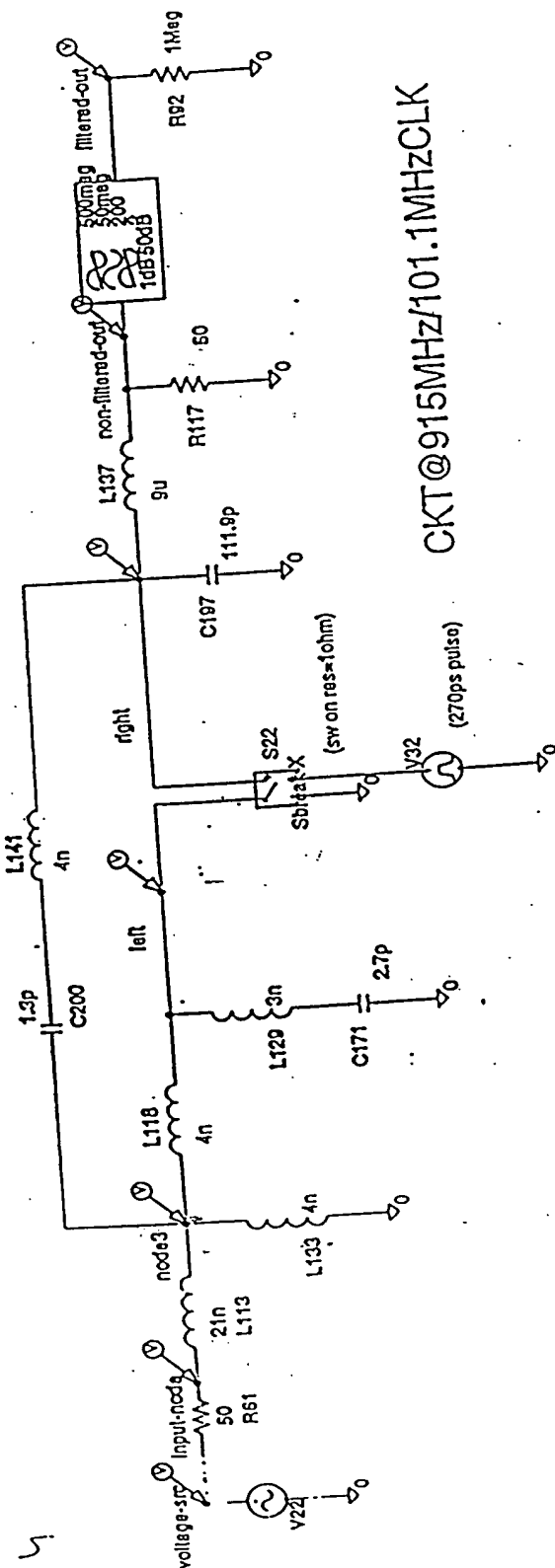


Fig 92

[illegible]

CKT@915MHz/101.1MHzCLK

Fig. 93

0011100 58152560

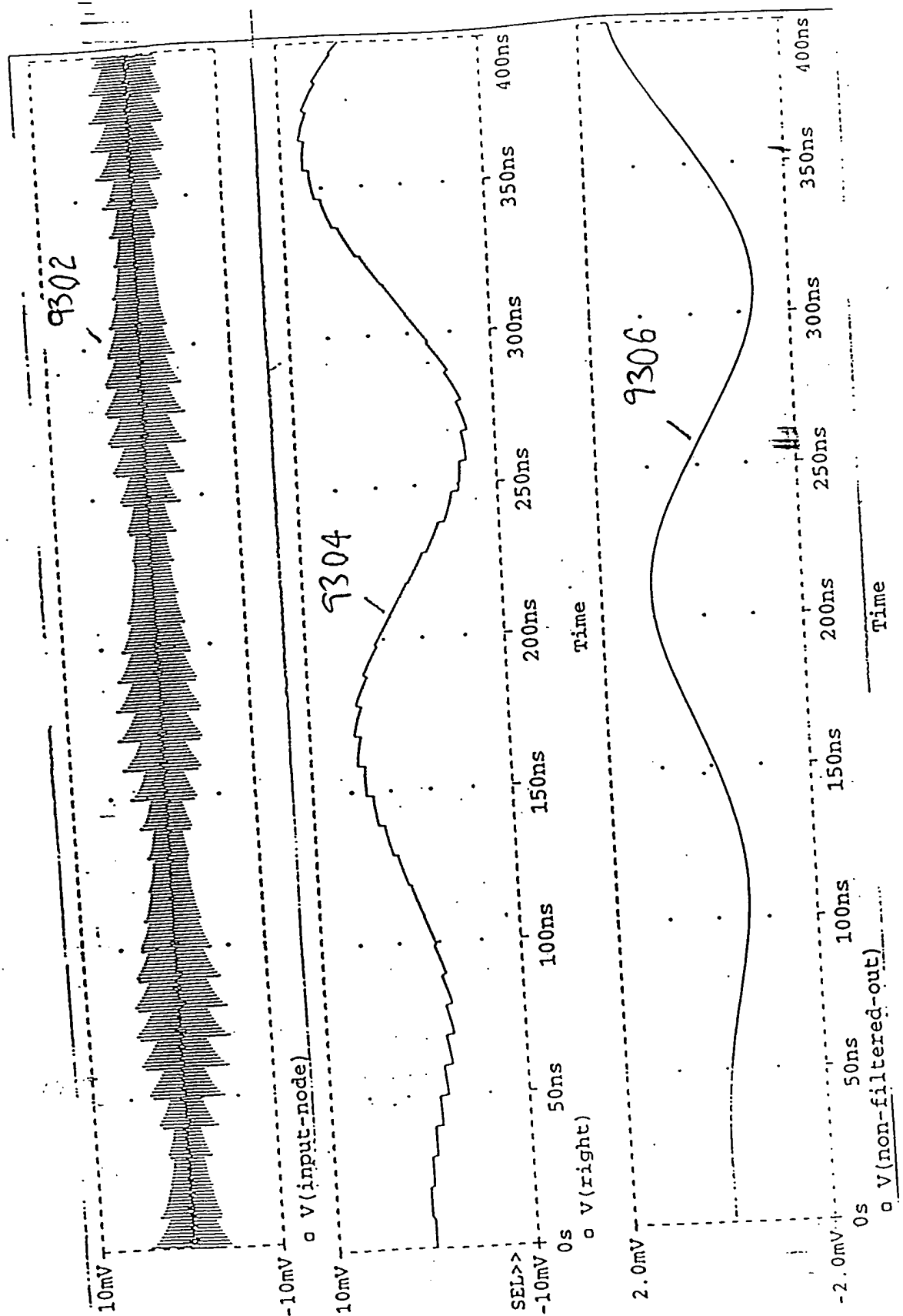


Fig. 94

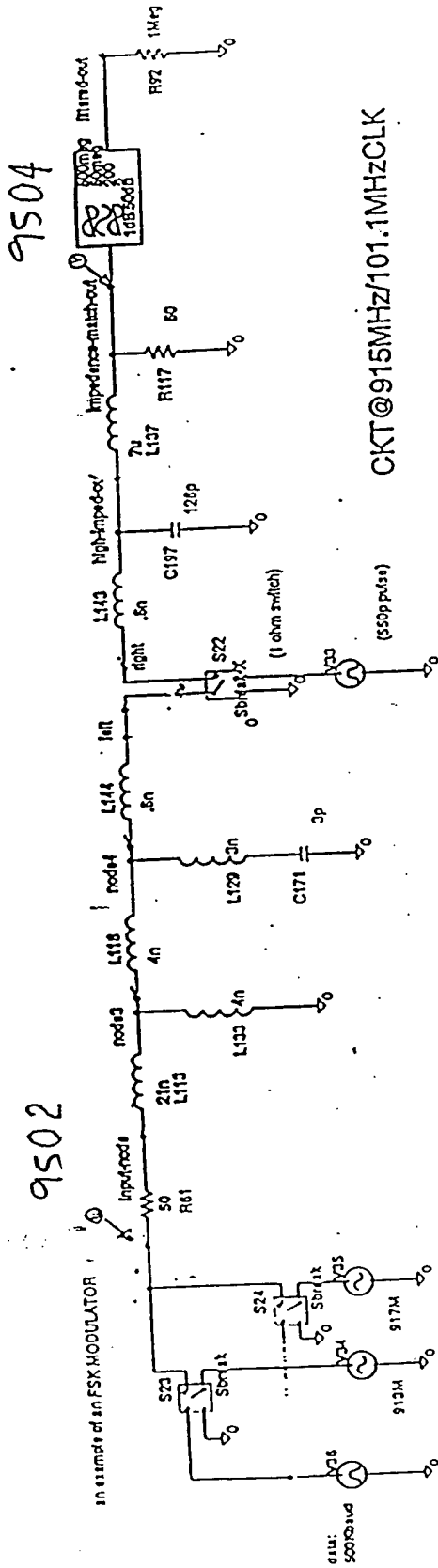


Fig. 95

9602 9608 9614 9618 9622 9626 9630 9632 9634 9636 9638 9640 9642 9644 9646 9648 9650 9652 9654 9656 9658 9660 9662 9664 9666 9668 9670 9672 9674 9676 9678 9680 9682 9684 9686 9688 9690 9692 9694 9696 9698 9700

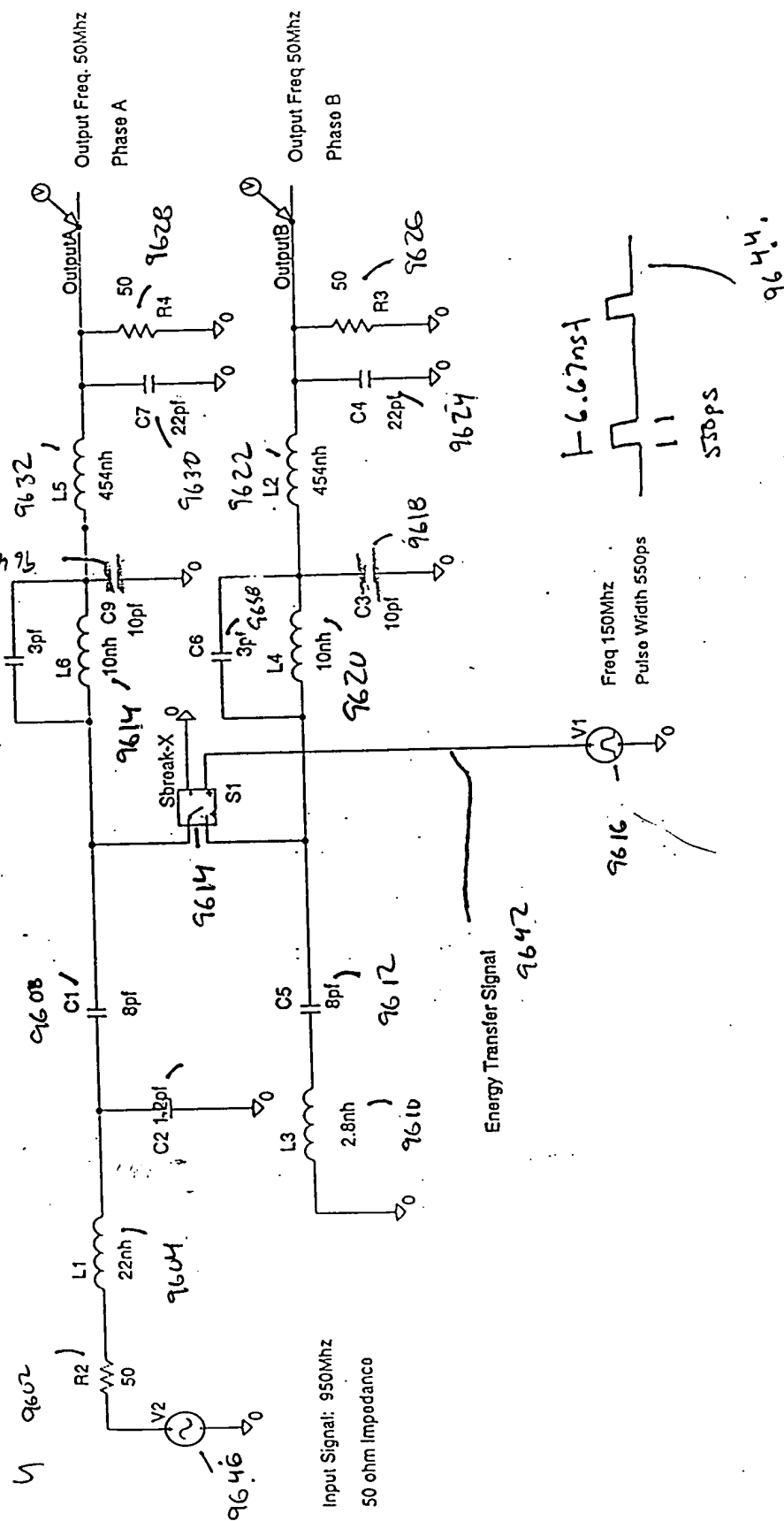
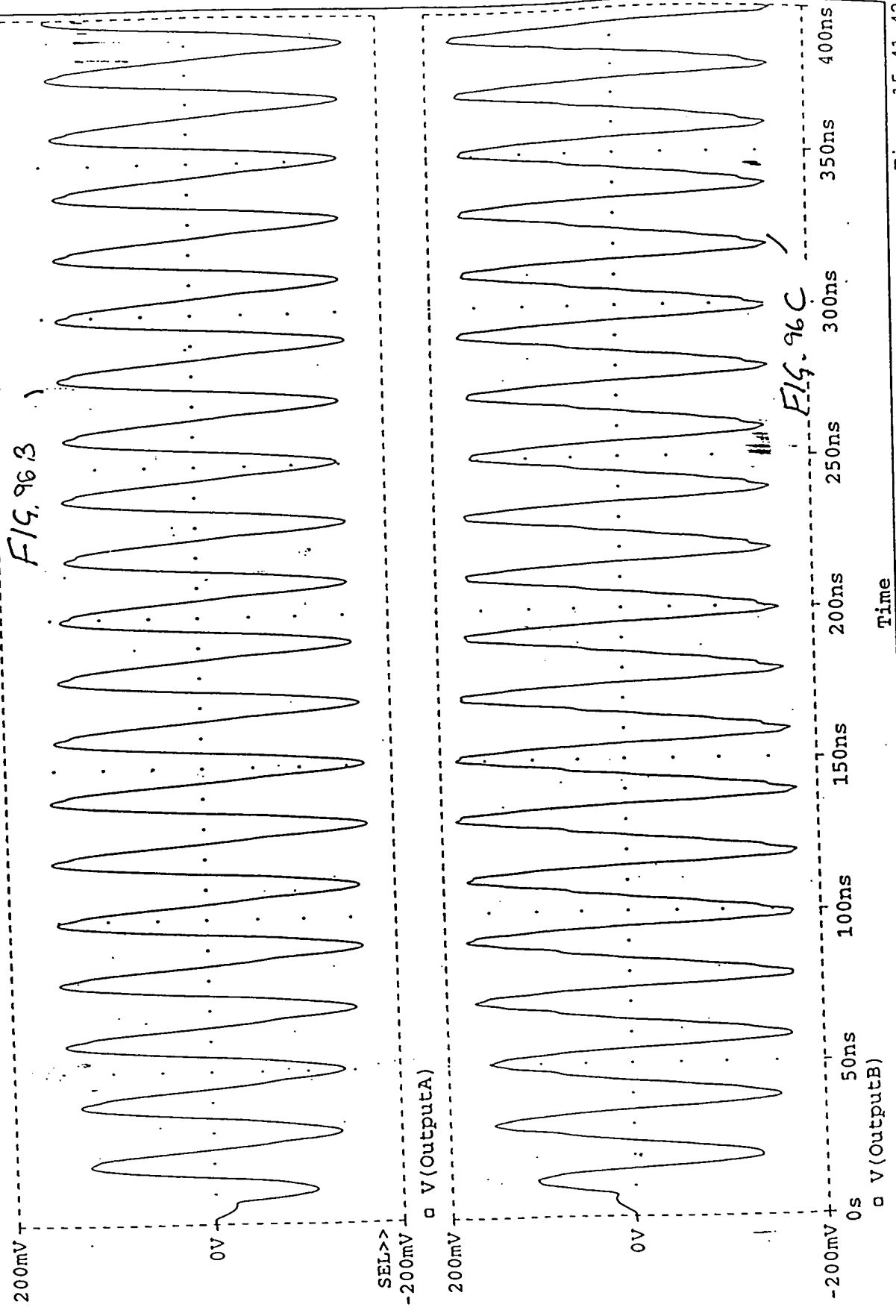


FIG. 96-A

Date/Time run: 10/14/98 15:37:54

(A) pat1.dat

5



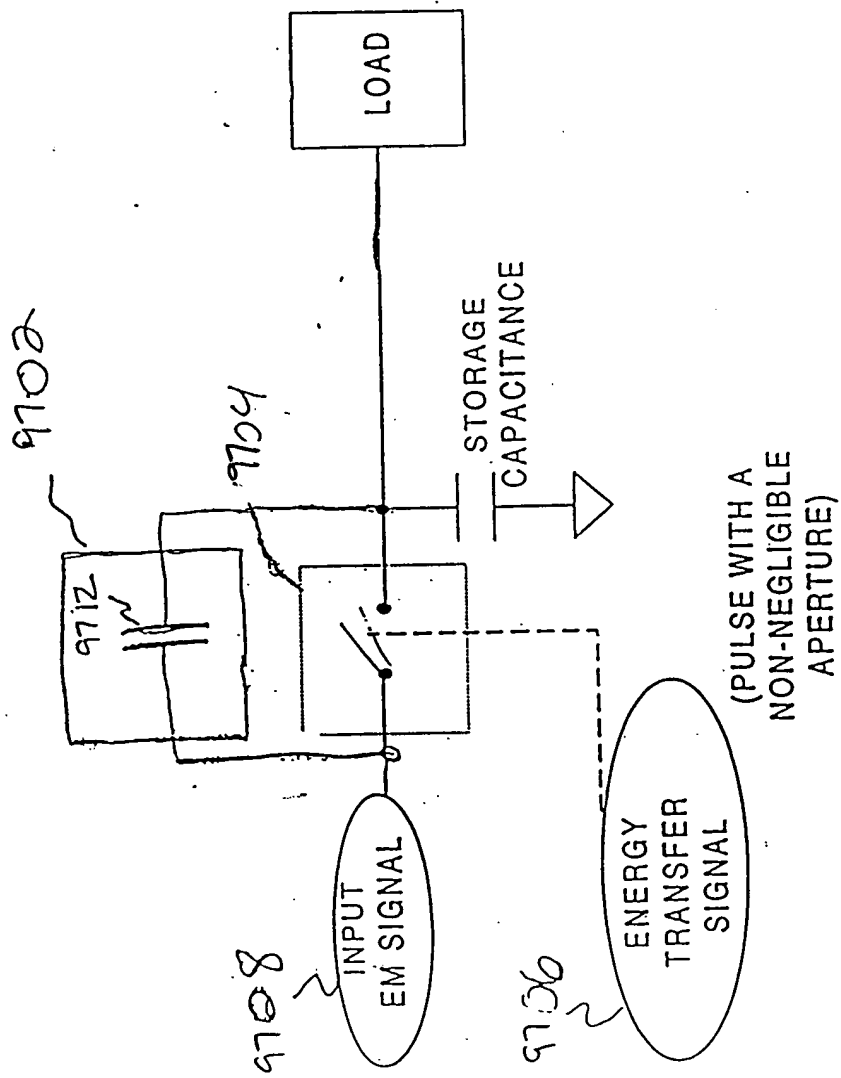


Fig. 97

9802

BYPASS CAPACITOR
(WIDENING THE
APPARENT APERTURE)

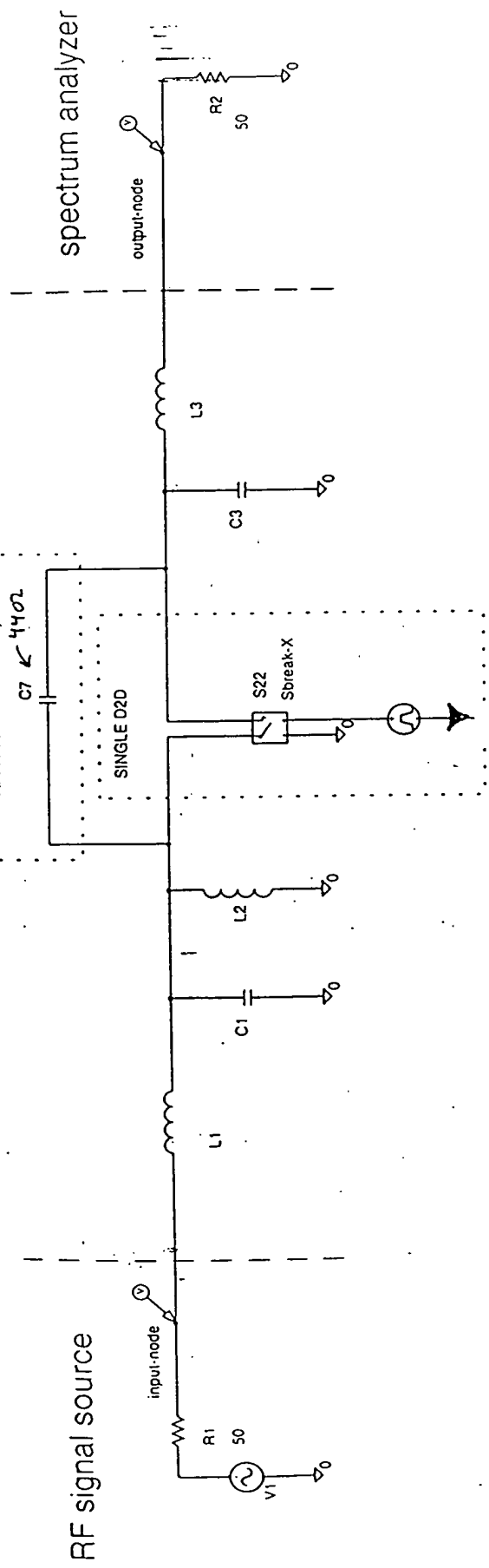


FIG. 98

9912

9910

9910 9911 9912 9913 9914 9915 9916 9917 9918 9919 9920 9921 9922 9923 9924 9925 9926 9927 9928 9929 9930 9931 9932 9933 9934 9935 9936 9937 9938 9939 9940 9941 9942 9943 9944 9945 9946 9947 9948 9949 9950 9951 9952 9953 9954 9955 9956 9957 9958 9959 9960 9961 9962 9963 9964 9965 9966 9967 9968 9969 9970 9971 9972 9973 9974 9975 9976 9977 9978 9979 9980 9981 9982 9983 9984 9985 9986 9987 9988 9989 9990 9991 9992 9993 9994 9995 9996 9997 9998 9999

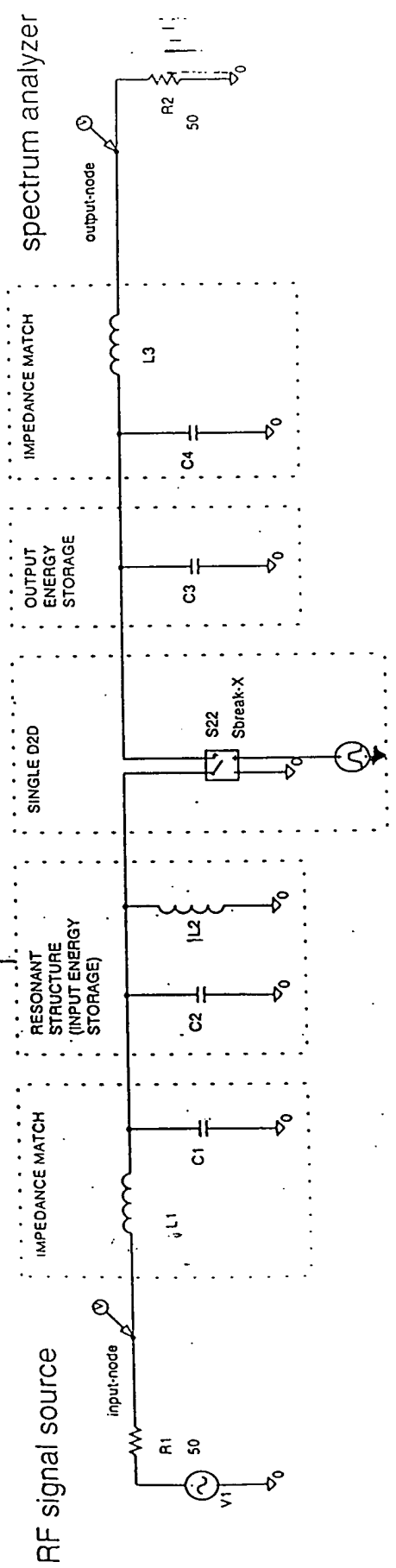


FIG. 99



FIG. 100A

clock
win *

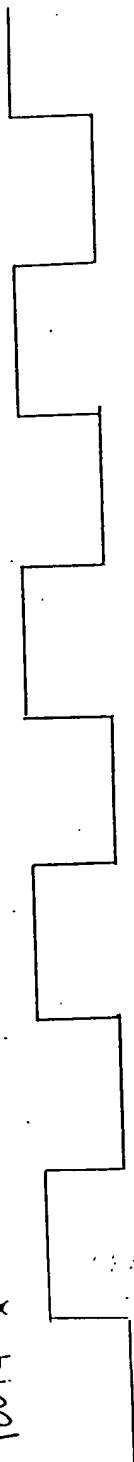


FIG 10.3

Optional Enable 10010101



Fig 10c

Inverted Clock

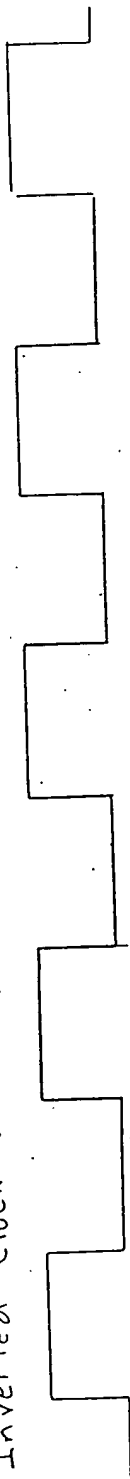


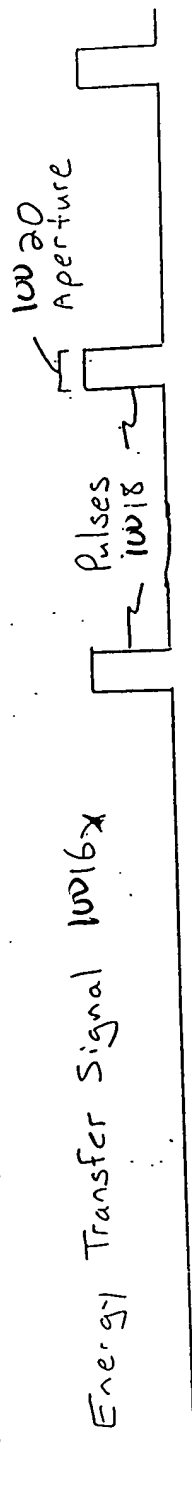
Fig 1D

Delayed clock $\text{WD24} \times$

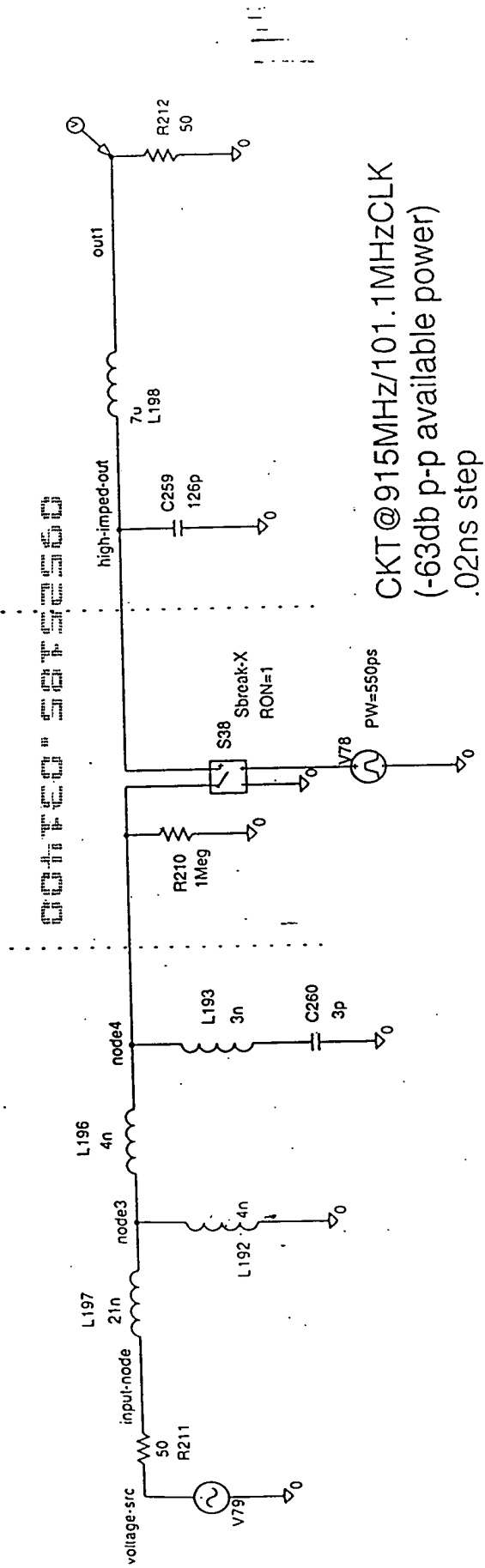


FIG 10E

Energy Transfer Signal 1006x



2100

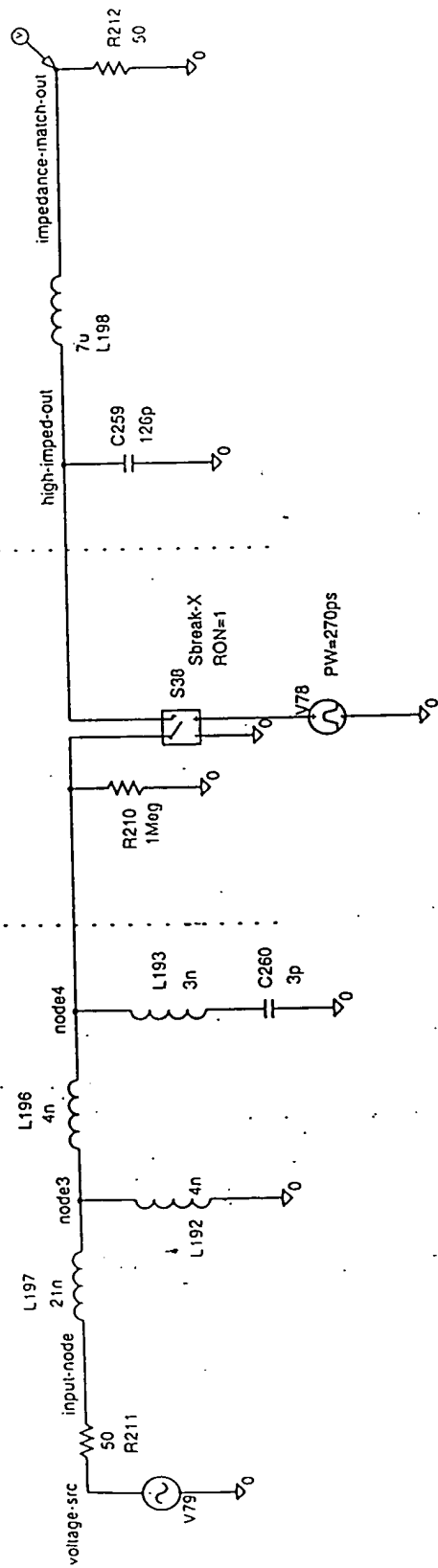


CKT@915MHz/101.1MHzCLK
 (-63db p-p available power)
 .02ns step

single-series-switch-915M-5M-hieff.sch

FIG. '101

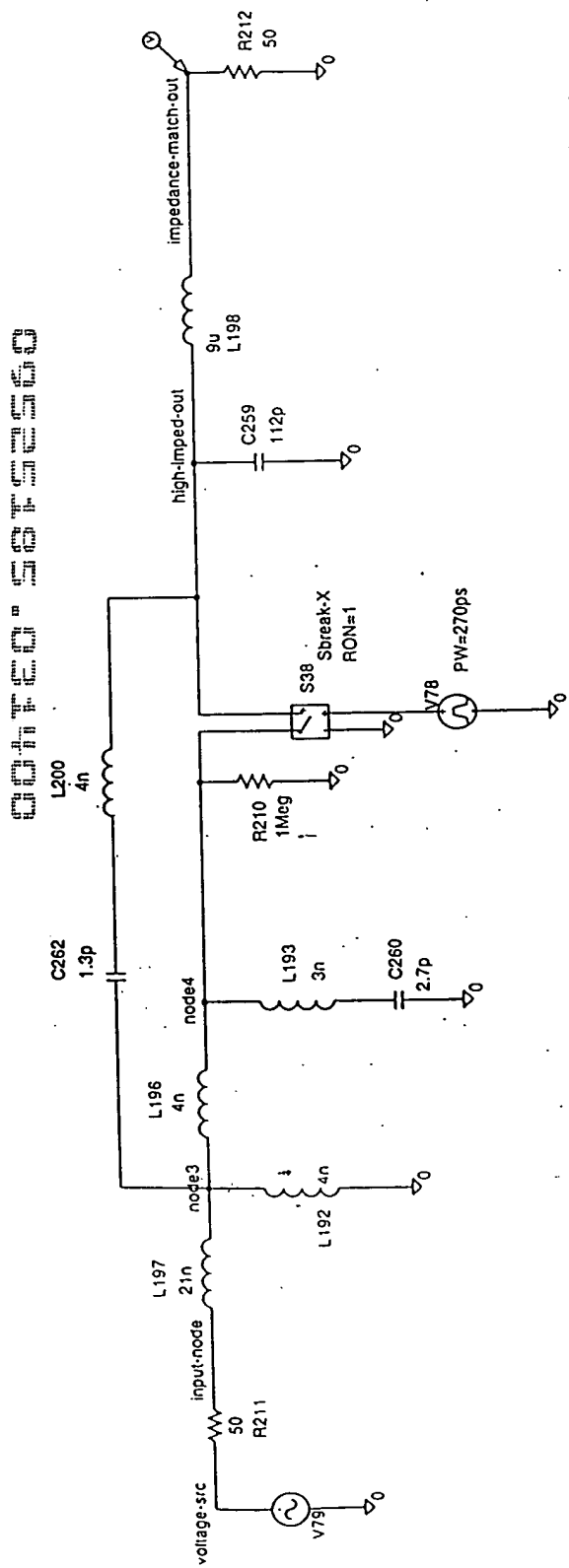
OUTFEO" 30T312350



CKT@915MHz/101.1MHzCLK
(-63db p-p available power)
.02ns step

single-series-switch-smapture915M-5M-hieff.sch

FIG. 102

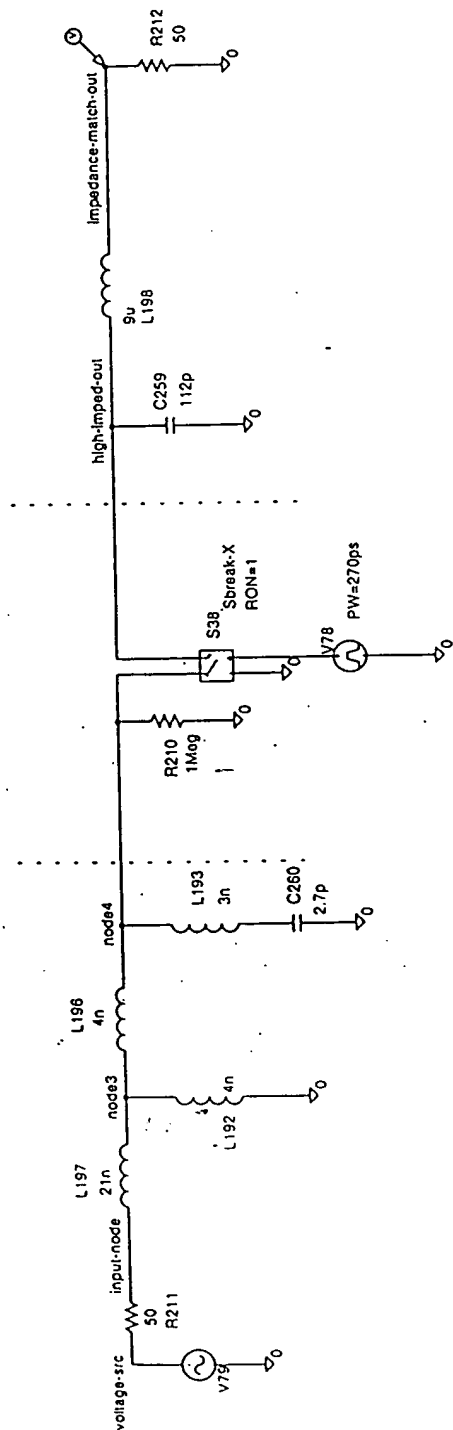


CKT@915MHz/101.1MHzCLK
(-63db p-p available power)
.02ns step

single-series-switch-bypass-915M-5M-hieff.sch

FIG. 103

304720 3373950



CKT @915MHz/101.1MHzCLK
(-63db p-p available power)
.02ns step

single-series-switch-wobypass-915M-5M-hieff.sch

FIG. 104

(E) single-series-switch-915M-5M-hieff.dat

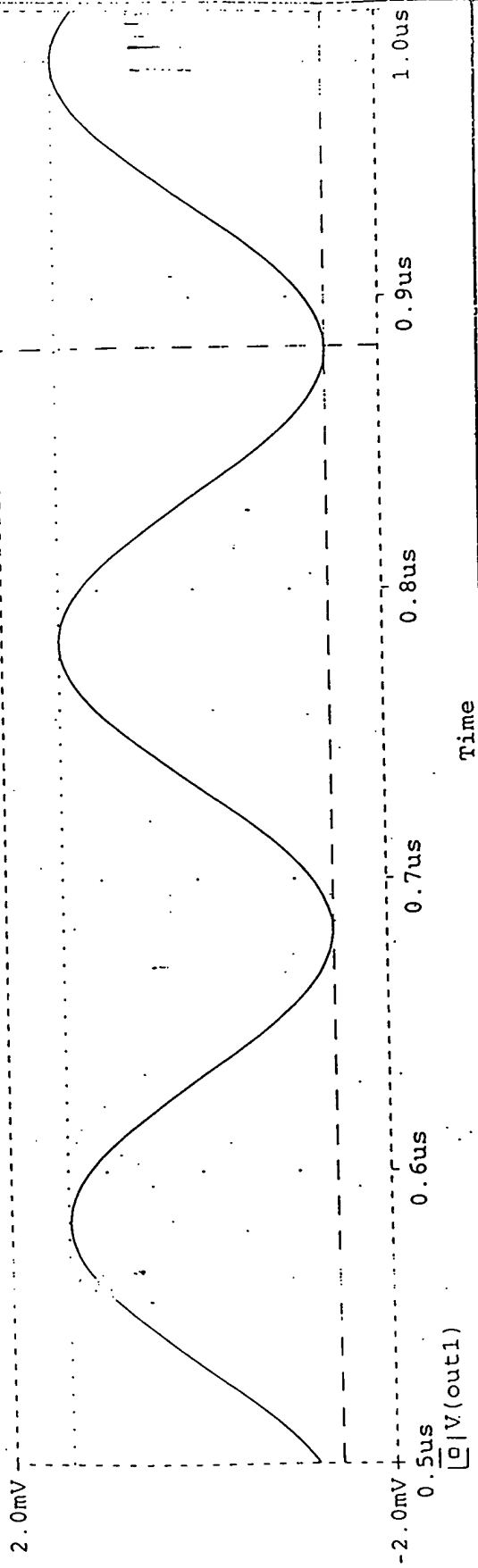


FIG. 105A

(F) single-series-switch-smaperture915M-5M-hieff.dat

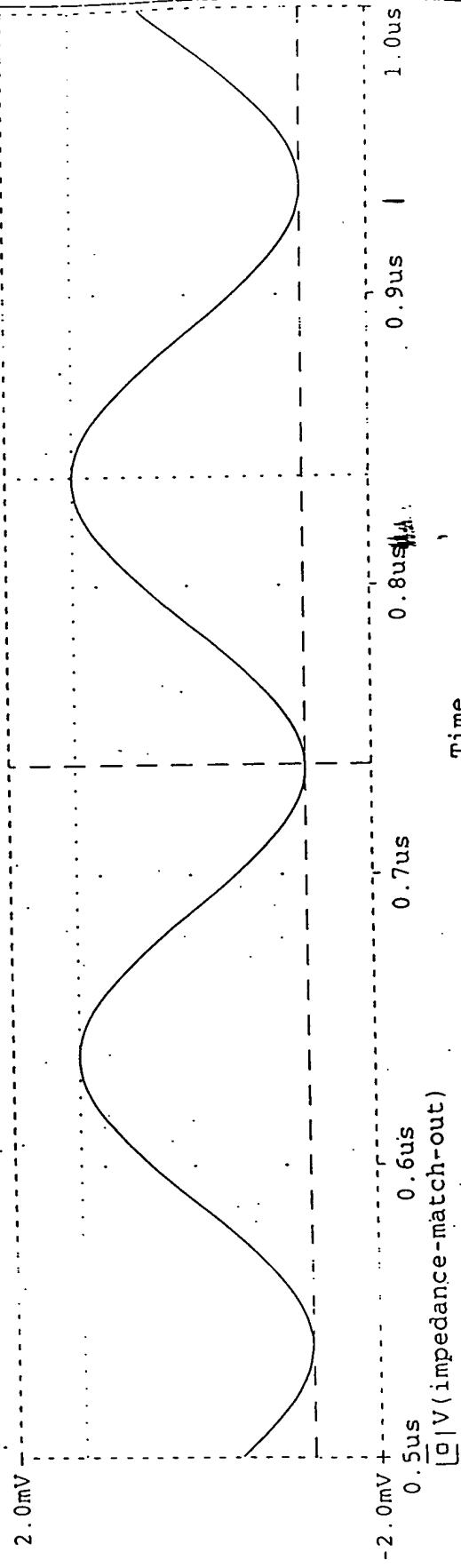


FIG 105B

E1: (981.86n, 1.404m) E2: (883.04n, -1.402m) DIFF(E): (98.82n, 2.806m)
F1: (837.43n, 1.253m) F2: (738.01n, -1.252m) DIFF(F): (99.42n, 2.505m)

(A) single-series-switch-wobypass-915M-5M-hieff.dat

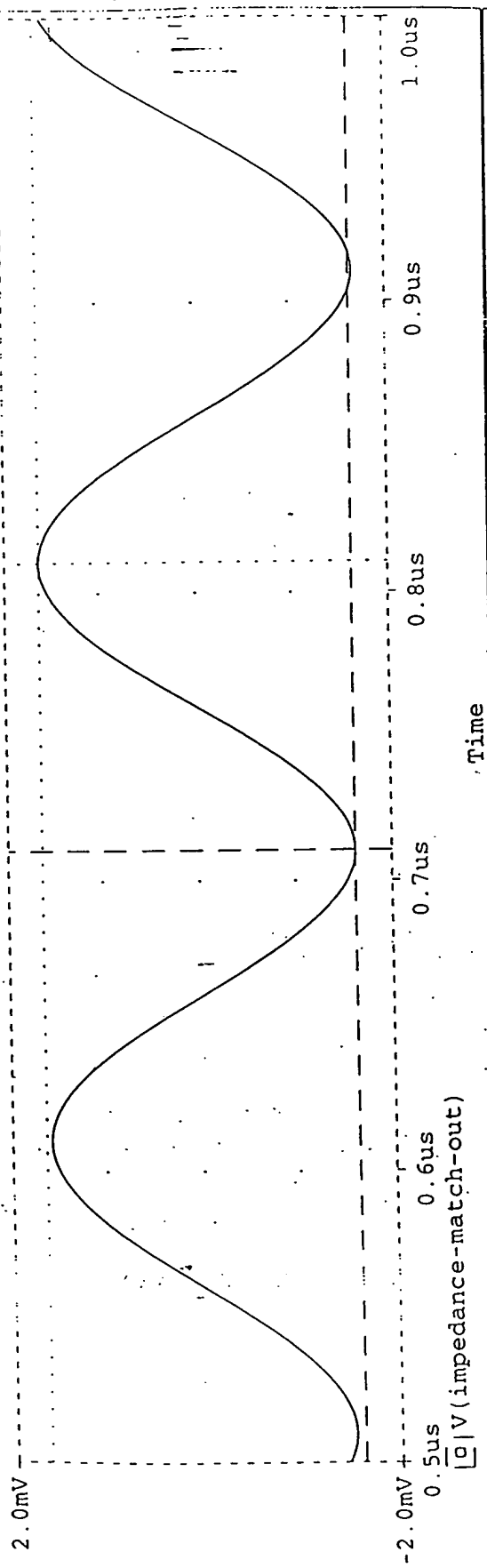


FIG. 106A

(B) single-series-switch-wobypass-915M-5M-hieff.dat

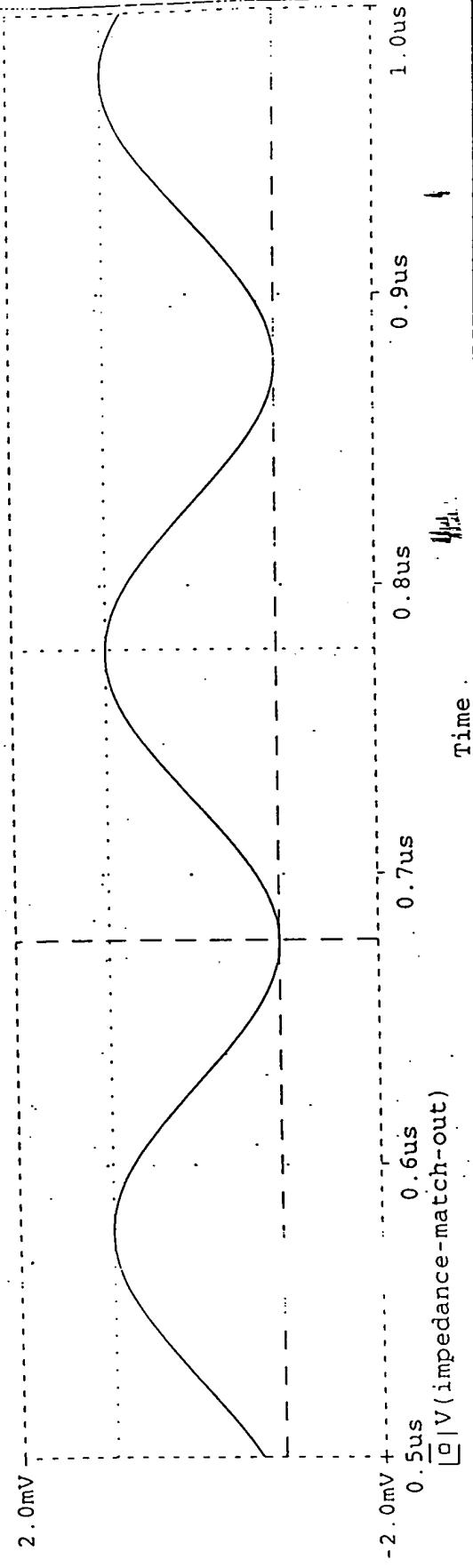


FIG. 106B

A1: (810.53n, 1.642m) A2: (710.52n, -1.621m) DIFF (A): (100.01n, 3.263m)
B1: (777.78n, 942.32u) B2: (677.18n, -942.51u) DIFF (B): (100.60n, 1.885m)

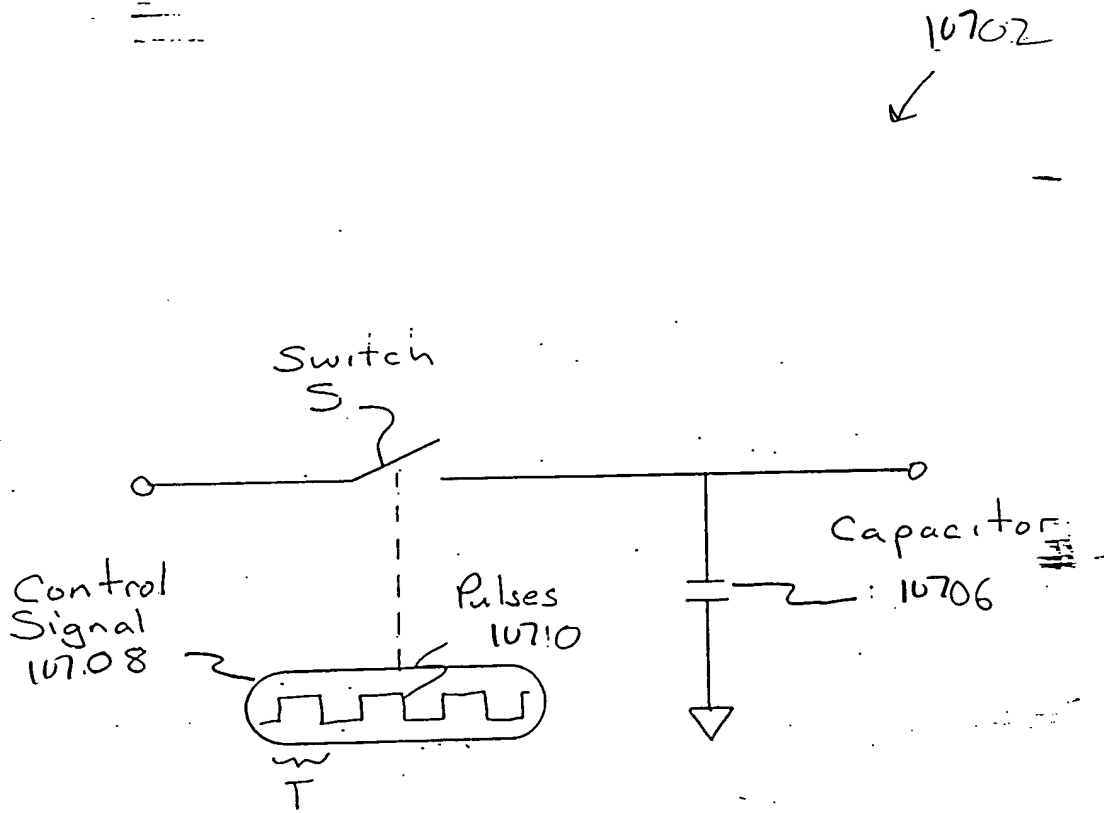


FIG. 107.A

$$q = C \cdot V \quad \text{EQ. 10}$$

$$V = A \cdot \sin(t) \quad \text{EQ. 11}$$

$$q(t) = C \cdot A \cdot \sin(t) \quad \text{EQ. 12}$$

$$\Delta q(t) = C \cdot A \cdot \sin(t) - C \cdot A \cdot \sin(t - T) \quad \text{EQ. 13}$$

$$\Delta q(t) = C \cdot A \cdot (\sin(t) - \sin(t - T)) \quad \text{EQ. 14}$$

$$\sin(\alpha) - \sin(\beta) = 2 \cdot \sin\left(\frac{\alpha - \beta}{2}\right) \cdot \cos\left(\frac{\alpha + \beta}{2}\right) \quad \text{EQ. 15}$$

$$\Delta q(t) = 2 \cdot C \cdot A \cdot \sin\left[\frac{t - (t - T)}{2}\right] \cdot \cos\left[\frac{t + (t - T)}{2}\right] \quad \text{EQ. 16}$$

$$\Delta q(t) = 2 \cdot C \cdot A \cdot \sin\left[\frac{1}{2} \cdot T\right] \cdot \cos\left[t - \frac{1}{2} \cdot T\right] \quad \text{EQ. 17}$$

$$q(t) = \int C \cdot A \cdot (\sin(t) - \sin(t - T)) dt \quad \text{EQ. 18}$$

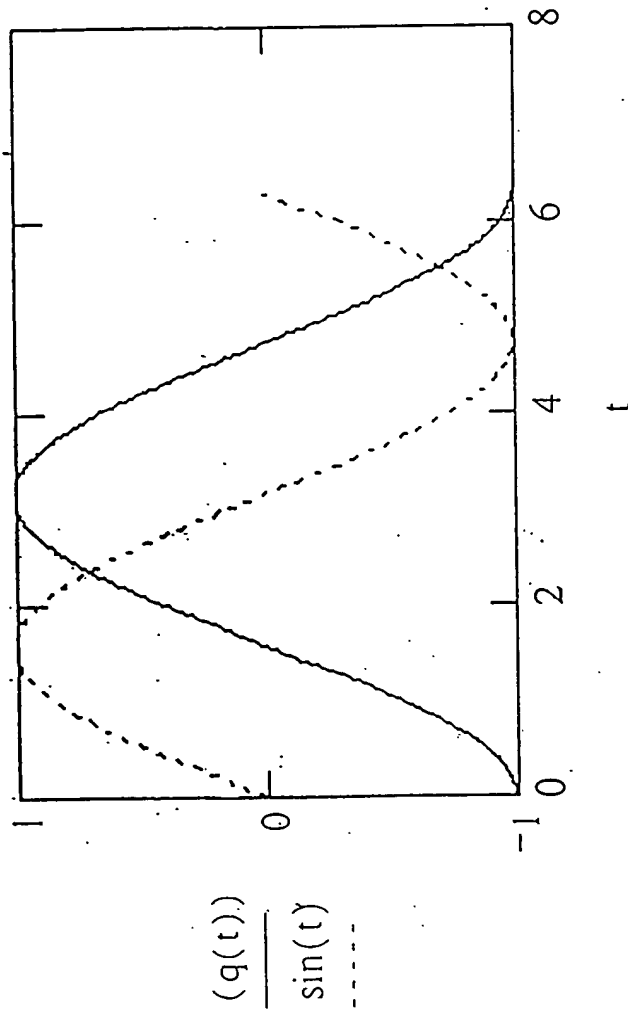
$$q(t) = -\cos(t) \cdot C \cdot A + \cos(t - T) \cdot C \cdot A \quad \text{EQ. 19}$$

$$q(t) = C \cdot A \cdot (\cos(t - T) - \cos(t)) \quad \text{EQ. 20}$$

FIG. 107B

2025-03-10 10:40

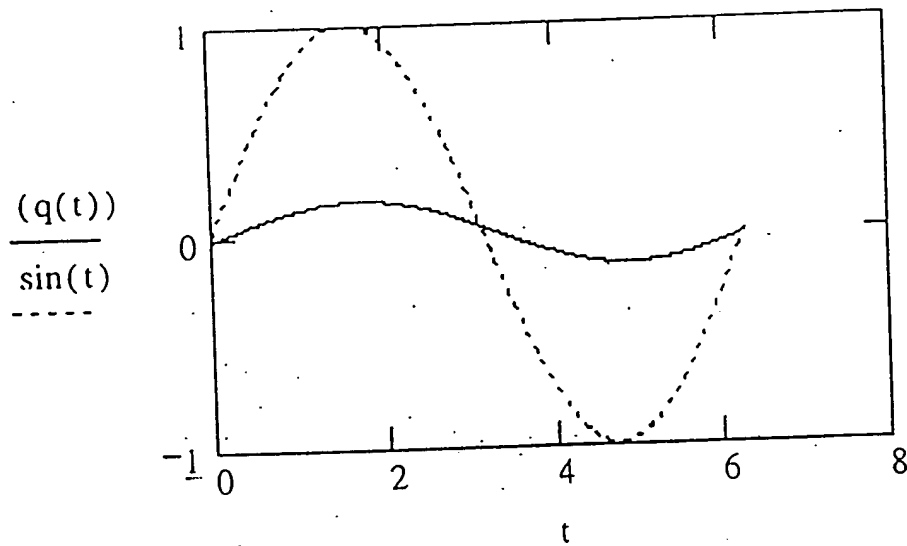
007720" SEP 23 1960



$C=1; A=.5, T=\pi$

FIG. 107.C

For Graph 2: $C=1$, $A=.5$, $T=\pi/10$:



Graph 2

FIG. 10, D

Power - Charge Relationship

$$q = C \cdot V$$

EQ. 21

$$V = \frac{q}{C}$$

EQ. 22

$$V = \frac{J}{C}$$

EQ. 23

$$J = \frac{q^2}{C}$$

EQ. 24

$$P = \frac{J}{S}$$

EQ. 25

$$P = \frac{q^2}{C \cdot S}$$

EQ. 26

FIG. 107, E

Insertion Loss

Insertion loss in dB is expressed by:

$$IL_{dB} = 10 \cdot \log \left[\frac{P_{in}}{P_{out}} \right]$$

or

$$IL_{dB} = 10 \cdot \log \left[\frac{\left[\frac{V_{in}^2}{R_{in}} \right]}{\left[\frac{V_{out}^2}{R_{out}} \right]} \right]$$

FIG. 107, F